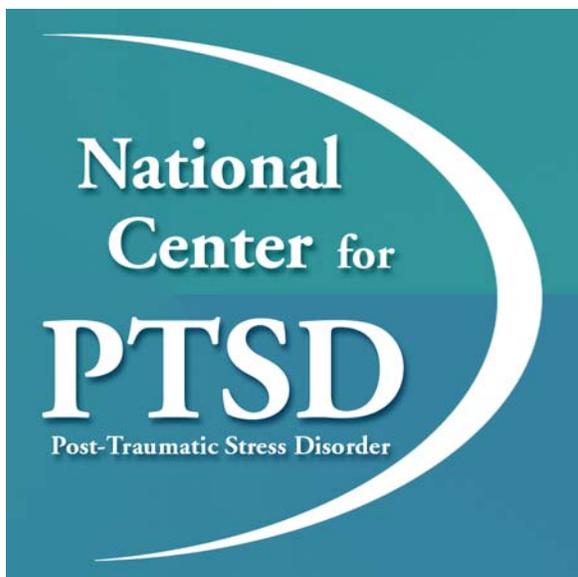


THE NATIONAL CENTER FOR PTSD: WOMEN, THE MILITARY, AND PTSD

NATIONAL CENTER FOR PTSD

2003 ANNUAL REPORT



**DEPARTMENT OF
VETERANS AFFAIRS**

THE NATIONAL CENTER FOR PTSD

Fourteenth Annual Report

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FROM THE EXECUTIVE DIRECTOR

Of all the changes that have taken place in the military in recent years, none has been more remarkable than the evolution of the role of women. Women are now represented in virtually all areas of all branches of the armed services, including much-publicized roles in combat. As the number of women and the range of positions they occupy have grown, they are increasingly represented among the population of veterans – and among the segment of that population that is afflicted with post-traumatic stress disorder (PTSD).

The National Center has been very much in the forefront of work with women and PTSD throughout its history. The year 2003 marks the 10-year anniversary of the establishment of the Women's Health Sciences Division, which has been the focal point for much of our work. We are especially fortunate this year to welcome Dr. Patricia Resick, one of the top researchers in the field of women and trauma, as Director of the Division. We are confident that under her guidance the Division's already formidable record of accomplishment will continue to grow.

This Annual Report begins with an overview of our work on women and PTSD over the years, and then goes on to report on accomplishments throughout the National Center in the areas of research, education, and consultation. As always, we remain focused in all our activities on the health and well-being of America's veterans – a task that resonates especially strongly in the current environment of hostilities in Iraq and Afghanistan.

Our mission – to advance the clinical care and social welfare of America's veterans – has never been more critical than it is today. We remain as firmly committed as ever to fulfilling that mission – through research into the causes and treatments for PTSD, and through education and consultation activities that share the very best and most up-to-date knowledge with those who are most in a position to help.

A handwritten signature in black ink that reads "Matthew J. Friedman". The signature is written in a cursive, flowing style.

Matthew J. Friedman, MD, PhD

WOMEN, THE MILITARY, AND PTSD

A decade of change for women in the military

The last decades of the twentieth century were a time of great change in the military. Technological advances, terrorist threats, the end of the Cold War, and the increasing importance of peacekeeping missions all signaled a military that would enter a new century with goals and strategies very different from those of the past.

Nowhere were the changes more dramatic than in the role of women in the military. The first Gulf War, fought in 1990-1991 over the Iraqi invasion of Kuwait, ushered in an era of high-tech warfare where women played an increasingly vital role, in assignments that brought them closer to the front lines than ever before. At the same time, the events at the 1991 Tailhook convention clearly and very publicly spotlighted the special difficulties that women sometimes had to face when thrust into a male-dominated military culture.

Researchers and clinicians in the VA healthcare system began to encounter more and more women coming into the VA system with trauma-related problems. The diagnostic instruments and treatment regimens that existed at the time, however, had mostly been developed on the basis of research with veterans of Vietnam and earlier conflicts – a population that was overwhelmingly male and whose trauma history came primarily from combat exposure.

“In the 1980s we realized for the first time how many women veterans there were – well over a million,” says Dr. Susan Mather, Chief Public Health and Environmental Hazards Officer at the Department of Veterans Affairs (VA). “Our surveys showed that the VA was serving their health needs pretty well with problems like heart disease, but was much less effective with gender-specific issues. A few brave women were coming forward reporting instances of sexual assault, but there was no place in the VA to refer them.”

The National Center focuses on women and PTSD

The National Center for PTSD was already on the case. In 1990, the Center’s first year of operation, researchers in Boston began developing a Women’s Military Exposure Scale, a first step toward creating diagnostic instruments that would be valid for women. The Center’s *Clinical Quarterly* contained articles on gender in its very first year. The staff of the National Center counted among its members some of the leading women in the trauma field, including Dr. Jessica Wolfe in the Behavioral Sciences Division, Dr. Rachel Yehuda in the Clinical Neurosciences Division, Ms. Joan Furey in the Education Division, and Dr. Paula Schnurr in the Executive Division.

In addition to research and educational efforts aimed specifically at women, Center researchers were careful to incorporate women into broad-scale research projects wherever possible. For example, in 1990 the Center undertook a major study, in collaboration with the Department of Defense (DoD), of active-duty personnel as they returned to Fort Devens, MA, from the Persian Gulf. This study was explicitly designed to include women in the research population.

By 1992 the Center had established the Women's Trauma Consortium Project, a collaborative effort between researchers at Boston's Behavioral Sciences Division and the Education Division, headquartered in Menlo Park, CA. In 1993 the Project was spun off into a separate Division, Women's Health Sciences, located in Boston. This year marks the tenth anniversary of the Division and its many activities aimed at addressing the special challenges of women veterans.

"We realized that we needed to be more sensitive to gender-linked experiences," says Dr. Jessica Wolfe, founding Director of the Women's Health Sciences Division. "For one thing, even though the public didn't always realize it, many women were in fact in combat zones – assigned to hospitals located in hot zones, or in places where bases were being overrun. Then, in addition to these non-traditional combat-related experiences, many women also had to contend with instances of sexual harassment and sexual assault."

Over the past decade, professionals from throughout the National Center have worked along many fronts to better understand the nature of PTSD in women and to bring new knowledge and new approaches to practitioners both inside and outside the VA healthcare system.

- Research efforts have examined many aspects of women and their experiences with PTSD, including:
 - Several projects that look at women's experiences with the VA healthcare system, including utilization of services and staff gender awareness.
 - Development of PTSD interview and assessment instruments using more women-specific examples rather than ones derived from men in combat.
 - Research on the biological bases of PTSD in women vs. men.
 - Examination of the effectiveness of different treatments for PTSD in women, and whether effectiveness varies by gender.
 - Studies of possible predisposition to trauma, including examination of military women's prior history of sexual assault and domestic violence.
 - A major study on the adaptation to enlistment of women entering the Marine Corps, aimed at improving women's adaptation and retention.
- Educational efforts have been focused on bringing science into practice, and include mini-residencies for primary care clinicians working with women; development of the "Boston Model," a unique interdisciplinary system for implementation of state-of-the-art primary and mental health care for women; and the regular "Women and Trauma" column, which appears in every *Clinical Quarterly*.
- National Center professionals are called upon regularly to consult to organizations involved in women's health, including VA Women's Health Centers, Women's Stress Disorder Treatment Teams, VA hospitals, and the Walter Reed Army Hospital. Staff are also called upon at times to provide expert testimony, such as that provided to Congressional committees in the aftermath of the 1991 Tailhook incident.

Women in the military face special challenges

All this work over the past decade has brought to light several crucial differences between PTSD in women and in men.

First, the type of trauma that is experienced is different for military women than for men. Of the women who report that they experienced traumatic stress during their military service, the overwhelming proportion of the traumatic events is connected to sexual assault or harassment, not combat. In the relatively small number of cases where the reported trauma was combat-related, women were more likely than men to find themselves caught in hostile situations in which they were unarmed and unable to defend themselves.

Sexual assault, which is personal and intentional and often perpetrated by someone the victim knows, is especially traumatic, whether experienced by women or by men. In addition, says Dr. Susan Mather, “Sexual trauma is different in the military than it is in a civilian setting. In the military, a woman often can’t get away from her assailant – they control her career, much of her life. So approaches that work in the private sector don’t always apply to military sexual assault.”

There are also important gender differences. Women are more likely to develop PTSD, depression, and anxiety, whereas men are more susceptible to other kinds of problems, such as alcoholism and substance abuse. Research has shown that psychological abuse – from repeated harassment, for example – is more likely to result in PTSD than physical abuse or exposure to physical danger.

Finally, it is clear that gender plays a role in the biology of how traumatic events are processed. Recent research on brain chemistry has shown that the HPA axis – the combination of hypothalamus, pituitary, and adrenal glands – responds very differently in women and men under stress. There is also evidence that women’s response to stress varies with the menstrual cycle, suggesting that hormones can play a part in development of stress-related disorders.

For more detail on key findings from National Center research, see the list of articles under “For Further Reading.”

Current efforts seek to help women veterans in several areas

“The research that has come out of the Women’s Division has validated the fact that PTSD is an outcome of sexual trauma in the military, and gives it the same level of credibility as combat-related trauma,” says Ms. Carole L. Turner, Director of the Women Veterans Health Program of the VA. “In addition, we especially appreciate the fact that the National Center seeks out expertise of people on the practice end when they design their studies, and always focuses on the practical applications of what they are proposing.”

Current research on women and PTSD includes studies of the stressors that affect women, the mechanisms that control the development of PTSD, how the VA responds to women who are affected, and ways to treat the disorder. Among all the activities taking place throughout the National Center, four have especially significant implications for women veterans.

The Reservist Project on Sexual Trauma: In the early 1990s, the VA for the first time began offering free treatment for women who experienced sexual trauma while they were in the military. Reservists were not included in this program, however, unless they had been called up for at least 70 days. So, as part of a “Millennium Bill” mandated by Congress in the year 2000, the National Center undertook to study how women were taking advantage of this benefit, with specific attention to the issue of including reservists in the program.

Under the direction of Dr. Amy Street at the Women’s Health Sciences Division in Boston, the study involved telephone surveys with some 4,500 former reservists, both men and women, to determine whether they had experienced sexual trauma and/or sexual harassment while they were in the service. Dr. Street was surprised to find that 60% of women (and 25% of men) had had such experiences, and determined that it would cost close to a billion dollars to treat them over the next 5-10 years. This has brought the issue of sexual trauma in general into the spotlight, and has led to additional research efforts and training programs for clinicians.

Dr. Street comments, “The nature of sexual trauma in the military is personal and can be ongoing, rather than being an impersonal, random, one-time event. There is often shame and secrecy involved, and a fear that reporting the assault will invite retribution.” But, she continues, “We need to bring attention to the issue. These individuals were harmed in the course of doing service to their country, and we have a responsibility to them.”

Neurosciences and the HPA Axis: Researchers at the Clinical Neurosciences Division in West Haven, Connecticut, have been studying the structure and chemistry of the brain in an effort to better understand the specific mechanisms that underlie the development of PTSD. One especially fruitful avenue of exploration is around the hypothalamic-pituitary-adrenal (HPA) system, which is the area of the brain that processes stress signals and governs the body’s response.

One of the leading researchers, Dr. Ann Rasmuson, has included examination of women in her studies of HPA axis reactivity. “Levels of various hormones fluctuate dramatically at different points in a woman’s menstrual cycle and can alter the results of studies,” she comments. “The difficulty in controlling for the fluctuation in these hormones is one reason that researchers had traditionally shied away from studying premenopausal women. So, our study controlled for where the subjects were in their menstrual cycles.”

Researchers hope to identify the key points in the production of the various neurosteroids that can be adjusted with medication, potentially leading to treatments that involve new drugs or better targeting of existing drugs. By examining individuals immediately after they experience a traumatic event, it may even be possible one day to determine how to prevent PTSD from developing.

Gender Awareness by VA Staff: One of the earliest projects of the Women's Division was aimed at assessing gender awareness on the part of staff at VA medical facilities. Led by Dr. Lynda King, researchers developed an instrument to be administered to employees of VA hospitals, including not only medical personnel but also employees in clerical, maintenance, and other non-medical positions. "I got interested in this area when I joined the VA in Boston," says Dr. King, a Vietnam era veteran. "I went to sign up for my own healthcare, and nobody told me about the programs for women, even though in fact some were available."

Dr. King and her colleagues developed an instrument that measures staff members' sensitivity to the special needs of women, incorporating measures of attitudes as well as knowledge of special programs available to women. In addition to the assessment instrument, she and her colleagues have recently prepared a CD-ROM to use for training, which uses vignettes to illustrate various dilemmas and provides evaluations of responses.

"We have found that 75% to 80% of VA staff score well on the Gender Awareness instrument," says Dr. King. "We do still find some negative attitudes – mainly resistance to having to accommodate women's special needs, particularly women with children – but for the most part the VA personnel are serving women well."

PTSD Treatment for Women: The 1990s were a time of extensive research on treatment for PTSD, and great strides were made in helping its victims both within and outside the VA. However, because of the relatively small numbers of women receiving treatment at any one location, it was difficult to assemble a research sample to study treatments for women specifically. So, in 2000, a research team led by Drs. Paula Schnurr, Matthew Friedman, and Charles Engel proposed a large-scale treatment study, to be undertaken in cooperation with the DoD and the Readjustment Counseling Service.

Cooperative Studies Program (CSP) #494 seeks to evaluate the effectiveness of "Prolonged Exposure" treatment, a clinical approach in which the patient repeatedly revisits the traumatic experience in order to lessen the fear and change how she thinks about it. The approach has shown very positive results with a variety of stress-related and anxiety disorders in civilian populations. The study will eventually incorporate over 300 women, both active-duty and veterans, at nine VA hospitals

For Further Reading

Fontana et al. (2000). Impact of combat and sexual harassment on the severity of posttraumatic stress disorder among men and women peacekeepers in Somalia. *Journal of Nervous and Mental Disease*, 188, 163-169.

Fontana et al. (1998). Duty-related and sexual stress in the etiology of PTSD among women veterans who seek treatment. *Psychiatric Services*, 49, 658-662.

King et al. (1999). Posttraumatic stress disorder in a national sample of female and male Vietnam veterans: risk factors, war-zone stressors, and resilience-recovery variables. *Journal of Abnormal Psychology*, 108, 164-170.

King et al. (2002). Gender differences in stress, trauma, and PTSD research: Application of two quantitative methods. In R. Kimerling, P. Ouimette, C. Paige, & J. Wolfe (Eds.), *Gender and PTSD* (pp. 403-433). New York: Guilford Press.

Rasmusson et al. (2001). Increased pituitary and adrenal reactivity in premenopausal women with posttraumatic stress disorder. *Biological Psychiatry*, 50, 965-977.

Wolfe et al. (1993). Development of a wartime stressor scale for women. *Psychological Assessment*, 5, 330-335.

Wolfe et al. (1994). Posttraumatic stress disorder and war-zone exposure as correlates of perceived health in female Vietnam War veterans. *Journal of Consulting and Clinical Psychology*, 62, 1235-1240.

Wolfe et al. (1998). Sexual harassment and assault as predictors of PTSD symptomatology among U.S. female Persian Gulf War military personnel. *Journal of Interpersonal Violence*, 13, 40-57.

and two Vet Centers across the country, as well as at Walter Reed Army Medical Center.

Although the study is still under way, it could have positive effects fairly soon. “The approach is relatively easy to teach to clinicians, even if they are not experts in cognitive behavioral therapy,” Dr. Schnurr reports. “So, if our research shows this treatment to be effective, it could be rapidly adopted by practitioners throughout the VA system.”

Future activities look at women and PTSD on many fronts

Dr. Patricia Resick, one of the leading trauma researchers in the country, recently joined the National Center as Director of the Women’s Health Sciences Division. Commenting on the challenges that lie ahead, Dr. Resick says, “More women are under fire in the military than ever before. The situation in Iraq is chronically dangerous – somewhat like Vietnam, where a person could never really feel safe. Certainly we anticipate there will be more women coming out with PTSD than in the past, and the VA will need to gear up to treat them.”

Among the top priorities over the next few years for the National Center and its work with women will be the following:

- Identifying the most effective treatments for PTSD in women: behavioral, biological, and pharmacological.
- Partnering more actively with the DoD in order to better understand women coming into the military, potentially leading to the ability to identify at-risk women or to develop strategies for PTSD prevention.
- Disseminating information through educational programs and consultation activities, to get information into the hands of practitioners who are working with women as well as into the hands of policymakers and others outside the VA system.
- Exploring the total range of healthcare delivery for women, and understanding where and how the systems aimed at treating mental and physical health intersect.

“Our key priority is to bring our talented staff together around these women’s issues,” says Dr. Resick. “We want to create a women’s division without boundaries, where researchers and practitioners, inside and outside the VA, are all working together.”

About this Annual Report

The balance of this Annual Report presents the highlights of the activities of the National Center for PTSD during FY 2003, including the major accomplishments of the seven divisions in the three key areas of endeavor:

- **Research:** Through its research into the causes and treatments for PTSD, the Center is a world leader in research on trauma and its aftermath. The Center’s multisite structure and multidisciplinary staff, coupled with the extensive network of partnerships and collabo-

rations, give the Center a unique ability to take on projects of a size and scope that would be beyond the capabilities of most research organizations.

- **Education:** The Center's educational initiatives assimilate information and coordinate communication among top scientists in the field, bringing that information to clinicians and policymakers both inside and outside the VA, and serving as a resource for laypersons who wish to gain a better understanding of PTSD.
- **Consultation:** Center expertise has been sought with increasing frequency by the top leadership, policy makers, and program directors in the VA and in other government agencies and branches; by a growing number of academic and non-governmental organizations that are dealing with PTSD as a major public health problem; and by the United Nations and national governments around the world.

A series of tables at the back of this document provide details on the organization of the Center and its seven individual divisions, research grants, publications, and educational activities. Additional information is also available on the Center's website at www.ncptsd.org.

RESEARCH

From its inception, the Center's structure has given it an uncommon ability to bring together the most knowledgeable people and useful resources from many locations and many disciplines, and to focus those energies on research with far-reaching results.

The Center comprises seven separate Divisions in five different geographic locations stretching from Boston to Honolulu, each with its own area of expertise and access to resources. The in-depth specialization by site means that the Divisions are able to attract the very top talent in their particular fields of knowledge, professionals who are drawn by the opportunity to work with other leaders in their specialty, on the most cutting-edge research projects.

At the same time, though, the Divisions also share common interests and concerns, and this provides advantages as well. The multidisciplinary backgrounds of the staff mean that different research emphases and points of view can be brought to bear on research initiatives. The multisite structure, with locations spread across the country, permits the carrying out of projects of major size and scope. And the Center's many relationships throughout the VA, the government, academia, and the healthcare community afford ample opportunities for collaboration and broad dissemination of research findings.

Today the National Center is at the forefront of research into PTSD: its causes and symptoms, its assessment and treatment. The sections that follow discuss some of the major research initiatives – those that especially benefit from the Center's size and scope – followed by some of the specialized research efforts taking place in the Divisions. (A more detailed listing of Center research publications is contained in the tables at the back of this document.)

Major Research Initiatives in 2003

The National Center was involved in a number of major studies during FY 2003, many of which capitalized on the Center's nationwide scope and broad range of expertise. The following are a few of these major initiatives.

NVVLS follow-up: The National Vietnam Veterans Longitudinal Study (NVVLS) is aimed at gaining a better understanding of the current functioning of veterans of the Vietnam War. NVVLS is following up with the original cohort that was studied in the 1988 National Vietnam Veterans Readjustment Study (NVVRS), which examined the long-term effects of PTSD on psychological problems, physical health, and social functioning. With oversight by the Behavioral Sciences Division, the study will assess current prevalence of PTSD, cardiovascular disorder, and psychiatric conditions with specific attention to their relationships to chronic disease outcome and healthcare utilization patterns.

VA Cooperative Study #494: Spearheaded by the Executive Division and sponsored by the VA Cooperative Studies Program and the DoD, CSP #494 is studying the effectiveness of prolonged exposure therapy compared to therapy that focuses on current life problems for treating PTSD in female veterans and active-duty personnel. This is the largest study of any kind of psycho-

therapy for PTSD ever conducted, and the first Cooperative Study to focus exclusively on women. CSP #494 takes advantage of the National Center's geographic reach, and is being conducted at nine VA hospitals and two Vet Centers across the country as well as at Walter Reed Army Medical Center. The study will eventually involve up to 300 women, of which 125 had been enrolled at the end of FY 2003. Although the results will not be known until data collection is completed in 2005, the study has already demonstrated that it is feasible to deliver prolonged exposure treatment in a VA setting.

Millennium Reservist Project: The Millennium Project is a Congressionally-mandated study of sexual harassment among former members of the Reserve forces. This investigation, led by the Women's Health Sciences Division, was designed to identify the rates of sexual harassment and assault experienced by these Reservists during their service and to estimate the cost of providing counseling for them through VA. A draft report was submitted to VA Headquarters at the end of FY 2003; the results are described in more detail on page 4.

MIRECC Collaborations: The National Center is working with the Mental Illness Research, Education and Clinical Centers (MIRECCs) on two important projects. The first is an evaluation of a bio-terrorism preparedness campaign for veterans. The study focuses on developing and evaluating educational materials aimed at increasing veterans' knowledge about bio-terrorism, reducing their current anxiety about a future bio-terrorism occurrence, and minimizing the psychological consequences if such a disaster were to occur. The second study is an evaluation of the effectiveness of antidepressants with the α -2 noradrenergic receptor agonist guanfacine, to determine if this combination of medications will help to reduce arousal and re-experiencing in PTSD patients.

VA Cooperative Study #504: This study, developed by the Clinical Neurosciences Division, was accepted for planning by the VA CSP in FY 2003. Researchers have found, on the basis of clinical practice and small-scale clinical trials, that atypical neuroleptics such as risperidone might be effective when used in conjunction with other drugs for treatment of PTSD. CSP #504 is a major study that will involve 482 patients from 15 VA Medical Centers, and will examine the efficacy of risperidone when added to a treatment regimen of antidepressants and standard VA psychosocial treatment

Division Research Activities

Each Division within the National Center has a particular area of specialty, placing the sites in a position to conduct the most advanced research projects within their area of expertise. The following sections describe some of the ongoing research initiatives at the seven sites.

Executive Division: The main function of the Executive Division, located in White River Junction, VT, is to direct the policy and program planning of the National Center, but it has always played an active role in treatment outcome research. In addition to CSP #494, the Division is conducting trials of cognitive-behavioral treatment for PTSD in individuals with a comorbid severe mental illness and cognitive processing therapy for military-related PTSD. The Division is also conducting two pilot studies: cognitive-behavioral couples treatment for PTSD in veterans, and brief integrative therapy for PTSD in sexual assault survivors.

The Executive Division also specializes in disaster mental health. The Division continues to work with the Center for Mental Health Services as part of a four-year interagency agreement to develop best practices after disaster. This research has had several threads:

- Researchers conducted a case study in New York City that examined provider perspectives on current practices, principles, and processes in disaster mental health services around the 9/11 terrorist attack on the World Trade Center. Results will be used to develop training programs for disaster mental health leaders and providers.
- The interviewers also obtained input from VA hospital directors and mental health providers, and their perspectives will be synthesized into an online guidance document for VA practitioners involved in disasters and terrorism.
- To more directly aid New York in its mental health response to 9/11, the Center developed a referral tool to identify individuals in need of more intensive mental health care and a 12-session cognitive behavioral intervention to treat them. Data are currently being collected to begin to evaluate the effectiveness of the intervention program.

Behavioral Science Division: The Behavioral Science Division, headquartered in Boston, MA, specializes in research on the basic mechanisms of PTSD, psychotherapy, and assessment.

Among the projects currently under way on the basic mechanisms of PTSD are two that are examining the behavioral pharmacology of nicotine in PTSD, particularly with regard to allocation of attention and emotional response to trauma cues. A third study echoes this focus on affective process by examining how personality, trauma exposure, and PTSD influence emotional responses to evocative photographs; this is part of a series that explores the core internalizing and externalizing dimensions of personality as predictors of symptom expression and functioning among trauma-exposed individuals. Additional basic laboratory studies aim to validate the eye-blink startle reflex as an index of HPA axis functioning as well as emotional processing deficits in PTSD, particularly with regard to the construct of “numbing.”

In addition to work on basic mechanisms, the Division strives to identify the course and risk factors for the disorder. Three studies currently underway with veterans include the following:

- A two-year longitudinal evaluation of symptom course for chronic PTSD involves efforts to determine the impact of life stressors, social support, and core personality traits.
- Research is under way on long-term health and adjustment in Vietnam era repatriated prisoners of war.
- Researchers are studying the predictors and correlates of partner-violence among those who participated in the landmark NVVRS.

Looking outside the veteran population, a new five-year prospective study examines risk and resiliency factors among firefighters, particularly how stress exposure leads to PTSD and comorbid substance abuse.

In the area of prevention and intervention techniques, two studies are currently taking place in collaboration with the DoD aimed at preventing adjustment problems following exposure to stressors encountered during both peacekeeping and combat missions. A related line of secondary prevention research examines the efficacy of a therapist-assisted, Internet-based intervention for individuals exposed to mass violence. Similarly, a newly funded study is developing and evaluating group treatment for acute stress disorder as experienced by civilian firefighters.

More traditional tertiary intervention is the focus of two studies. The first aims to develop a manualized intervention for PTSD among seriously mentally ill individuals who receive care in public-sector clinics. The other is evaluating the effectiveness of a three-phase, manualized group treatment for combat-related PTSD in veterans.

Long-term efforts at the Division continue toward development and validation of measures for major trauma-related constructs, and include the following:

- Late-onset stress symptomatology in aging veterans is the focus of a series of qualitative and quantitative studies examining re-emergence of PTSD symptoms in apparently well-functioning combat veterans in late life.
- Psychosocial risk and resiliency factors for contemporary military personnel build on past work that has produced a valid and reliable inventory currently in use with veterans deployed to Iraq.
- Continuing a line of instrument development that has been active for over 10 years, a project is under way to provide additional validation for the widely-used PTSD Checklist.

Clinical Neurosciences Division: The Clinical Neurosciences Division specializes in neurobiology, brain imaging, genetic epidemiology, and pharmacotherapy — research aimed at understanding the physical basis of how the brain receives and processes traumatic stress. Headquartered in West Haven, CT, the Division is divided into six laboratories, each of which is at the leading edge of expertise in a particular specialty.

Recent studies from the **Laboratory of Molecular Pathogenesis and Treatment Mechanisms** have focused on the hippocampus, the area of the brain that processes memories. One study has shown that atrophy and cell death of neurons in the hippocampus can be caused by stress, and that chronic administration of antidepressants and electroconvulsive therapy can have a protective and regenerating effect by stimulating neurogenesis, or the regrowth of these neurons.

The **Laboratory of Molecular Genetics** is currently examining the molecular aspects of vulnerability to and sequelae of comorbid substance abuse in veterans with PTSD, as well as the interplay of genes and environment in declining cognitive function among aging traumatized populations. In a cross-national project with a team of researchers from the PTSD Research Center of the Hadassah Medical Center in Israel, the laboratory is evaluating the relationship between PTSD and genes linked to neurosteroid production and function and to monoamine systems.

Researchers in the **Laboratory of Clinical Neuroscience and Therapeutics** specialize in identifying effective medications for PTSD; current studies include the following:

- Researchers are evaluating the use of novel pharmacologic agents, such as guanfacine or dehydroepiandrosterone (DHEA), as adjunctive treatments for PTSD; they are also examining pharmacological treatments for high-priority PTSD populations such as substance abusers.
- The lab continued its long history of employing experimental psychopharmacologic and neuroendocrine stress paradigms for studying the neurobiology of PTSD.
- Studies focused on the hippocampus are looking at the possible regenerative effects of chronic treatment with the selective serotonin reuptake inhibitors (SSRIs) in trauma survivors with PTSD.

Within the **Laboratory of Cognitive Neuroscience**, researchers continued to study the phenomenology and neural circuitry of key facets of memory dysfunction and maladaptive mood reactivity in PTSD. Studies have focused on emotional reactions to and subsequent memory for the 9/11 terrorist attacks in individuals with and without PTSD; predictors of cognitive dysfunction, memory impairment, and eyewitness memory under conditions of high-intensity military training; the functional neurocircuitry of reduced heart rate in PTSD; characteristics of episodic memory in PTSD patients; and disturbances in encoding of memory through both behavioral and functional magnetic resonance imaging (fMRI) studies.

The **Laboratory of Molecular Neuroimaging**, a leader in studies on brain imaging, is currently involved in research on conditions that are commonly comorbid with PTSD. These studies include SPECT imaging of benzodiazepine receptors in recovering alcoholics; several studies involving PET imaging of 5-HT_{2A} receptors in smokers; and two studies involving SPECT imaging of dopamine and serotonin transporters in alcoholic smokers and nonsmokers, and in major depression.

The **Laboratory of Neurodevelopment** has established a program to conduct longitudinal, clinical, and neuroimaging studies of brain development in maltreated children with PTSD. The Laboratory is also engaged in working with the State of Connecticut to evaluate a new program, called SAFE Homes, designed to secure permanent placements for children who enter out-of-home care due to allegations of abuse and/or neglect. An exciting development this year involves a new collaboration with the National Institute of Mental Health's Program of Mood and Anxiety. This collaboration involves a comprehensive study of resilience among former prisoners of war, combat Medal of Honor winners, and active Special Forces soldiers.

Women's Health Sciences Division: This Division, located in Boston, MA, is conducting several studies aimed at understanding emotional responding related to PTSD, including the following:

- A laboratory study examining emotional responding among women with PTSD related to interpersonal violence was completed this year, with results that could have important implications for recovery of women with this disorder.

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- Investigators have developed and tested a measure of emotional numbing for use by clinicians and researchers working with trauma survivors.
 - Data analyses are under way in a two-year study of the relationships between trauma recovery and emotional processing in veterans.

Another area of research focuses on identifying genetic and environmental risk factors for trauma, PTSD, and comorbid disorders within population-based samples. Ongoing studies include a family-based candidate gene association study for PTSD, an epidemiologic study of the role of genetic and environmental factors in the relationship between PTSD and other disorders, and a longitudinal study of PTSD course in American Legion members. Another laboratory-based experimental investigation examines risk recognition and emotion regulation as risk factors for exposure to future traumatic events. Finally, as a part of a larger study of military personnel who served in the 1991 Gulf War, researchers have undertaken specific analyses to identify deployment stressors unique to women.

Several studies are under way on prevention and intervention with women. One ongoing study examines how acceptance and mindfulness may appeal to patients, augment behavioral treatments, and improve quality of life. A risk reduction program aimed at women with a history of interpersonal violence is also under development. A group-based treatment study for women with fibromyalgia and PTSD is about to begin. Finally, pilot data are being collected to compare Hepatitis C veterans with and without PTSD in order to evaluate psychosocial barriers they encounter in obtaining Interferon alpha treatment.

Researchers in the Division are continuing their efforts to disseminate findings from a women veterans' health services research project, described more fully on page 5. In the coming year, a computerized interactive educational intervention will be administered and evaluated using samples of VA employees in the New England region and, if successful, will be made available nationally. It is expected that this educational intervention will be a positive step toward improving the care provided to women veterans through the VA system.

Northeast Program Evaluation Division: The primary goal of the Evaluation Division, headquartered in West Haven, CT, is to assess the quality and effectiveness of the PTSD and mainstream mental health programs throughout the Veterans Integrated Service Network (VISN). The Division issued its eighth report card on the National Mental Health Program Performance Monitoring System and the 11th report in the *Long Journey Home* series on the status of specialized treatment programs for PTSD.

To better understand the impact of 9/11 on veterans with PTSD, investigators in the Evaluation Division conducted two large-scale studies of the aftermath of the terrorist attacks. One study focused on veterans' visits to VA for outpatient treatment, the other on veterans' symptoms and social functioning.

Collaboration continued between investigators in the Evaluation Division and the Education Division in developing a monitoring instrument for clinical outcomes in specialized outpatient PTSD programs. The results of a pilot study showed that the instrument has good reliability and sensitivity to changes in clinical status during treatment. The results also indicated that coverage could be expanded profitably to include some new domains and to increase the precision of

assessment of some existing domains. A second round of data collection is currently under way to evaluate the changes to the instrument.

Education Division: Investigators at the Division, located in Palo Alto, CA, received a grant from the NIMH to study sleep in patients with PTSD and panic disorder, and were granted a patent for a novel sleep recording methodology. In conjunction with the Behavioral Sciences Division, analyses continued of a large, combat-related PTSD structural neuroimaging database, and efforts to obtain genetic analyses of the sample population are under way.

Several studies at the Division focus on prevention and intervention, including the following:

- An efficacy trial of topiramate showed that it is effective in treating PTSD re-experiencing symptoms in VA residential treatment patients.
- A pilot telemedicine study suggested that bi-weekly telephone case monitoring improves continuity of care for veterans discharged from residential rehabilitation PTSD treatment; plans for a larger project are under way.
- In collaboration with the Sierra-Pacific MIRECC, a pilot study evaluated self-defense training as an intervention for women veterans with a history of sexual trauma.
- Work has begun on a project to compare web-based relapse prevention with aftercare as usual.

Pacific Islands Division: The Pacific Islands Division in Honolulu, HI, was established to examine cross-cultural issues in trauma and PTSD. The Division continues to engage in research on PTSD among ethnic minority veterans, with a focus on Asian-Americans and Pacific Islanders. Among research studies currently underway are a study of race-related trauma; development of a model of treatment for race-related stressors; a study to validate a neuropsychiatric measure of immediate reactions to trauma; and an extension of ongoing work on biomarkers of stress in veterans with Gulf War Syndrome.

The Division is engaged in several active collaborations with other institutions. Together with Tripler Army Medical Center, the Division is conducting a prospective study examining the role of resiliency factors in deployment with active-duty populations. In collaboration with the University of Hawaii Medical School, Division staff are working on a longitudinal research project, funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), focused on examining the role of trauma, PTSD, and pregnancy complications in Asian/Pacific Islander women.

Honors and Awards

Many of the researchers from the National Center earned recognition for their achievements during the year. Among the award recipients were the following:

- Drs. Dan and Lynda King received the Laufer Award for Outstanding Scientific Achievement in the field of PTSD from the International Society for Traumatic Stress Studies (ISTSS).

- Dr. Patricia Resick received a Career Achievement Award from the American Psychological Association's Section on Clinical Emergencies and Crises.
- Dr. Robert Rosenheck received a Senior Scholar in Health Services Research Award from the American Psychiatric Association (APA); the William C. Porter Award for Contributions to Psychiatry from the Association of Military Surgeons of the United States; and the Carl Taube Award for Career Contributions in Mental Health Services Research from the American Public Health Association.

Research Funding

In FY 2003, Center researchers held grants and submitted proposals for a total of 93 grants (see Table 3 for details). These grants supplemented the National Center budget and brought research funding for FY 2003 to over \$17 million and total research funding to over \$80 million.

National Center for PTSD Research Funding

	<i>FY 2003 Research Funding</i>	<i>Total Research Funding</i>	<i>Number of Grants</i>	<i>Number of Submitted Grants</i>
Executive Division	\$2,693,742	\$11,390,250	9	1
Behavioral Science Division	\$3,186,314	\$13,727,576	15	3
Clinical Neurosciences Division	\$10,223,554	\$48,141,964	47	2
Northeast Program Evaluation Division	\$600,000	\$180,000	1	1
Women's Health Sciences Division	\$517,052	\$3,547,952	4	1
Education Division	\$302,221	\$1,273,062	3	0
Pacific Islands Division	\$127,700	\$603,000	3	3
Total*	\$17,650,583	\$80,455,397	82*	11

* Total does not match rows because some grants had Co-Principal Investigators from more than one site.

EDUCATION

The educational activities of the National Center for PTSD are the mechanism through which the findings from empirical research, program evaluation, and best-practice development are put into practical application. Many educational activities are aimed at getting knowledge to the practitioners who deliver trauma-related services, including both mental health professionals and primary care providers. The communication channels established through educational activities also allow information from these practitioners to be directed back to the Center, ensuring that future research priorities are grounded in practical considerations.

Many of the Center's educational activities are also designed to bring information about PTSD to a broader audience, going beyond both the scientific research community and healthcare professionals. The Center's publications and website allow direct communication with veterans and their families, active-duty personnel, civilian victims of traumatic stress, government policy-makers, journalists, academics, and the general public.

Major Educational Initiatives in 2003

Among the major educational initiatives undertaken by the National Center in FY 2003 were three wide-ranging projects aimed at disseminating information and best practices to clinicians working with PTSD patients. Two of these efforts were undertaken in collaboration with experts from the DoD, capitalizing on the close working relationship that has developed between these two entities over the years.

Iraq War Clinician Guide: To help prepare the VA and the DoD to serve personnel returning from Iraq, the Center has developed the Iraq War Clinician Guide. The materials have been widely distributed within VA and DoD on CD, and are also available on the Center's website. Response has been very positive, and a second edition is now being prepared, with the active collaboration of military colleagues at Walter Reed Army Medical Center.

Joint VA/DoD PTSD Practice Guideline: Center staff collaborated with a team of VA and DoD experts to develop an evidence-based PTSD Practice Guideline for use for clinicians in VA, DoD, and other organizations. The guideline is a comprehensive set of materials that cover such important topics as triage and management of acute traumatic stress; diagnosis of trauma syndromes and comorbidities; evidence-based management of trauma-related symptoms; and psychological care in ongoing military operations.

The guideline is intended for use in both primary care and mental health settings, and includes procedural flow diagrams, summaries of evidence, and extensive annotations addressing key issues of care. Clinical algorithms are presented for acute stress reactions, acute stress disorder, and PTSD, accompanied by full reviews of the empirical literature. The latest draft of the Practice Guideline is currently under review for final approval, and once completed will be made available to clinicians through the Internet or as a hard copy.

PTSD 101: A Comprehensive Web-Based PTSD Training Resource: “PTSD 101” is a web-based training program that will provide practitioners — both new PTSD clinicians and seasoned providers — with a convenient way to access a range of continuing education materials. Three core areas of content will focus on clinician- and administrator-generated issues, the PTSD Practice Guideline, and care for Iraq War returnees. The program incorporates the real-world perspectives of field clinicians, PTSD program coordinators, and VA PTSD leaders, gained through a series of focus groups conducted early in the development of the program. PTSD 101 will utilize the latest web-based technologies to deliver a complete curriculum on all clinical aspects of PTSD treatment and diagnosis.

The National Center for PTSD Website

The National Center’s website, www.ncptsd.org, is a valuable resource for a vast array of people seeking information — scientists, clinicians, journalists, policymakers, and the families and friends of people suffering from traumatic stress-related disorders. Usage of the Center’s website has grown dramatically in recent years, largely in response to world events. The terrorist attacks of September 11, 2001, prompted traffic to the site to more than double from its previous level of 20,000 users per month to over 45,000. Website use has never returned to the pre-9/11 level, and continues to jump in response to events such as the 2002 anniversary of the 9/11 attacks and the beginning of the Iraq War in the spring of 2003. Over the fiscal year in total, a conservative estimate is that there were more than 450,000 unique visitors to the website from over 150 countries.

The website currently contains more than 1,200 pages, 110 fact sheets, over 500 downloadable articles by Center staff, and nine videos, including a speech by the Surgeon General and a series



of expert lectures on PTSD. This year approximately 35,000 videos and 737,000 articles were downloaded. During FY 2003 the Center focused on adding content specifically related to Iraq War returnees, such as the Iraq War Clinician Guide.

Publications and Resources

The National Center's *Research Quarterly*, a guide to the scientific literature on traumatic stress and PTSD, is aimed primarily at researchers and scientists. Topics covered during FY 2003 included genetics research in PTSD, traumatic stress in injured and ill children, sexual harassment, and psychological and behavioral impacts of bioterrorism.

Intended primarily for practitioners, The *Clinical Quarterly* focuses on issues related to the assessment and treatment of PTSD. Articles this year covered a range of important topics, including management of panic in veterans with PTSD, considerations in the development of school-based interventions following large-scale violence, reducing caregiver burden and psychological distress in partners of veterans with PTSD, matching treatment resources to patient readiness in an outpatient VA PTSD clinic, emergency outreach guidelines, and working with women veterans.

The Center also produces and disseminates *Science into Practice*, which aims to assist clinicians and administrators in finding relevant information on traumatic stress and PTSD. Led by staff at the Education and Pacific Islands Divisions, a team periodically reviews the traumatic stress literature, selects recent publications with important clinical care implications, and translates these into brief summaries with clinical commentary to assist in applying the information. These summaries are distributed periodically via email to over 800 VA PTSD treatment providers.

The National Center maintains the largest collection of traumatic stress literature in the world in its Resource Center, with 1,771 book titles and more than 16,000 journal articles. The PILOTS (Published International Literature on Traumatic Stress) database, the Center's online index to published literature, continued to experience substantial growth. PILOTS now includes 24,946 records, and more than 2,000 items are being added each year, including regular contributions of European literature provided by ICODO, the Dutch National Institute for the Victims of War. Usage of the PILOTS database is estimated at over 100,000 connections in 2003, which represents a quadrupling of usage just since the year 2000.

Training Programs and Conferences

Center staff presented a total of 113 workshops, training sessions, and papers in a wide range of educational settings during FY 2003. Key topics included assessment, early intervention, acute stress reactions, disaster mental health, cognitive behavioral treatments for PTSD and related conditions, and the neurobiology of PTSD.

The National Center Clinical Training Program, held in Palo Alto, CA, continued to be the primary PTSD-related training forum in the country for VA healthcare staff. During FY 2003, 92 mental health professionals participated in the one-week program, bringing to over 400 the number of VA practitioners who have attended this program. In addition, 15 "Seeking Safety" groups have been established in VA facilities based on Dr. Lisa Najavits' cognitive-behavioral group treatment

protocol for concurrent PTSD and substance abuse. Center staff are currently developing a suicide prevention training program for practitioners to use with special populations, including people with PTSD.

As part of the new state grants awarded by the Substance Abuse and Mental Health Services Administration (SAMHSA) for disaster preparedness, Drs. Patricia Watson and Josef Ruzek and Mr. Bruce Young are collaborating with the National Association of State Mental Health Program Directors. They have developed training materials and conducted regional training sessions designed to prepare state mental health leaders for events involving weapons of mass destruction and large-scale disasters.

A number of the divisions are involved in the training of individual researchers and practitioners. The Behavioral Sciences Division, Pacific Island Division, and Executive Division all have training programs involving VA interns, pre-doctoral interns, and postdoctoral fellows.

Educational Products and Programs

In recent years the educational activities of Center staff have expanded to include new partnerships, new methods for delivering information, and creation of new training materials aimed at specific aspects of PTSD. The following are some of the noteworthy efforts that took place during FY 2003.

VA Canada: Educational Partnership: As the result of a recent agreement at the Secretarial and Ministerial level between the VA and VA Canada, the National Center is working closely with VA Canada to help them design and implement educational and training activities for employees and contract healthcare providers. A major component of this project is design of a website that will be a key resource for Canadian professional staff.

PTSD and Telemedicine: Telemedicine is a way to supplement face-to-face care as well as to bring specialty PTSD services to veterans residing in remote locations. During the last year, the National Center developed a clinician guide called “Assessing and Treating PTSD using Behavioral Telehealth,” and work has begun on a web-based “Trauma Survivor Toolbox” to strengthen aftercare and reduce the rate of relapse. National Center staff also delivered presentations on PTSD telemedicine for the VA broadcast “Mental Health Services in VA Community-Based Outpatient Clinics,” and at the National MIRECC Conference.

Disaster Mental Health Activities: The National Center has created eight disaster mental health training modules, which synthesize empirical research, experiential evidence, field practice, and expert consensus data into an efficient, effective training for disaster mental health providers. These modules will be placed online in conjunction with videotaped vignettes as part of a comprehensive training program for disaster mental health providers. The National Center also received an education grant from the National Institute of Mental Health (NIMH) for a program that will train and mentor researchers in disaster methodology.

Ethnocultural Aspects of PTSD: In recent years, the National Center has created a series of videos designed to increase awareness of the impact of ethnicity and culture on care for

veterans with PTSD. Last year, Center staff, in collaboration with the VA Employee Education System (EES), produced videos focusing on the unique issues facing African American veterans with PTSD. An earlier video in the series, “PTSD Among Asian American and Pacific Islander Veterans: Perspectives for Mental Health Providers,” has now received ten industry-wide awards, including the Telley, Axiem, and Aurora awards.

PTSD and Primary Care: In the past year, the National Center’s primary care initiative has begun to examine the feasibility of integrating behavioral health care into the general medical practice at both the Palo Alto VAMC and the San Jose Outpatient Clinic. As part of this investigation, the National Center has introduced regular screening for PTSD as well as provider- and patient-oriented educational materials. A pilot project evaluating the impact of the model on patient and provider satisfaction is scheduled to begin in January of 2004.

CONSULTATION

The National Center has come to be recognized as the leading center of knowledge on PTSD and an indispensable resource for agencies and professional associations in the US and around the world. Moreover, Center professionals are accustomed to working in collegial, collaborative relationships with individuals and agencies in the government, academic, and healthcare communities. As a result, Center professionals are increasingly called upon to contribute their expertise to specific projects and initiatives, and to assume positions of leadership within the community of professionals dealing with traumatic stress.

Consultations cover a wide range of types of activity, from simple responses to phone calls and emails all the way to elected positions of leadership in major professional societies. Often a simple consultation is the start of a longer-term association with an individual or agency; in fact, many of the Center's most rewarding collaborative relationships began as consultations, including relationships with agencies throughout the VA, the DoD, and many professional societies both here and abroad.

Consultation to the VA

The Center continues to provide consultative services to a wide range of key VA programs and committees. The following are some of the major consultations:

- Drs. Matthew Friedman, Robert Rosenheck, and Susan Orsillo, and Mr. Fred Gusman, served on the Undersecretary for Health's Special Committee on PTSD. Dr. Paula Schnurr served as an advisor.
- Drs. Friedman, Josef Ruzek, and Steven Southwick served on the joint VA/DoD PTSD Practice Guideline initiative, which is developing guidelines for primary care and mental health clinicians who treat active-duty military personnel as well as veterans.
- Drs. Friedman and Terry Keane served on the Mental Health Strategic Health Group's Field Advisory and New Knowledge Committees, as well as on the Steering Committee for the NVVLS.
- Dr. Keane is President-elect of the Association of VA Psychology Leaders.
- Dr. Rosenheck served on the Under Secretary's Special Committee on the Treatment of Seriously Mentally Ill Veterans, as a consultant to the VA Secretary's Advisory Committee on Homeless Veterans, and as a member of the VA Headquarters' strategic planning group.
- Dr. Jeffrey Knight served on the VA Headquarters Compensation and Pension Examination Planning Committee and the Advisory Committee on Mental Health Instrumentation.
- Dr. John Krystal served on the VA Headquarters Medical Research Advisory group.

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- Dr. Ruzek served on the VA Mental Health Sub-Committee on Preparing VA for Weapons of Mass Destruction.
 - Dr. Amy Street is Co-Chair of the National Military Sexual Trauma Work Group.

The Center also holds important positions within the MIRECCs around the country. Dr. Rosenheck is Co-Director of the Connecticut-Massachusetts MIRECC; Dr. Keane is a member of the VISN 16 MIRECC Advisory Board; and Drs. Ruzek and Robyn Walser continued their collaborations with the Sierra-Pacific MIRECC to enhance PTSD care in VISN 21. Dr. Friedman is an advisor to the national MIRECC program and to the VISN 5 and 21 Advisory Boards, and Dr. Schnurr is an advisor to the MIRECC evaluation group.

Professionals from the Women's Health Sciences Division have consulted extensively to VA's Center for Women Veterans and VA's national network of Comprehensive Women's Health Centers, as well as to professional staff on VA's Women's Stress Disorders Treatment Teams.

Other Agencies

Over the years the Center has consulted with numerous other Federal agencies, efforts that have resulted in both research and educational products. A major initiative in FY 2003 was an NIMH/CMHS Round-Table session in which Drs. Friedman and Patricia Watson served as moderators and several other Center staff participated. The Round-Tables focused on mental health interventions following large-scale terrorist attacks or major disasters, with the goal of recommending guidelines on evidence-based best practices in the aftermath of such catastrophes and on identification of key research priorities. These sessions were attended by experts from VA, HHS, DoD, and a variety of national and international agencies.

Dr. Rosenheck served on a number of important committees, including the Expert Advisory Panel for the National Survey of Homeless Assistance Providers and Clients of the Federal Interagency Council on the Homeless; the National Strategic Mental Health Planning Committee; the Advisory Panel on Intelligent Mental Health and Substance Abuse Insurance Benefit Design of SAMHSA; and the Expert Panel for the National Symposium on Homelessness of the US Department of Health and Human Services (HHS).

Dr. Keane served as a member of the NIMH-Surgeon General collaboration on the psychological responses to mass violence, disaster, and terrorism. Staff from the Clinical Neurosciences Division participated on a number of scientific advisory boards, including the NIMH Intramural Program, the Special Emphasis Group of NIMH, and the Uniformed Services University of the Health Sciences/VA Postmortem Brain Laboratory for Severe Neuropsychiatric Trauma.

Professional Societies

National Center staff were well represented in leadership positions in the prestigious International Society for Traumatic Stress Studies in FY 2003. Dr. Schnurr served as President-elect – she assumes the Presidency in November 2003 – and Dr. Danny Kaloupek served as Treasurer and Chair of the Finance Committee. Drs. Resick, Eve Carlson, and Claude Chemtob served as ISTSS

board members; Dr. Carlson served as co-chair of the Fundraising Committee and received the Meritorious Service Award. Dr. Friedman served on the Nominations and International Affiliations Committee. Other staff who served as chairs of special interest groups and other committees included Drs. Keane, Ruzek, Watson, Lynda King, Daniel King, Rachel Kimerling, Greg Leskin, and Brett Litz.

Staff also hold key positions in the APA. Dr. Krystal served on the DSM-V Task Force on Gaps in our Current Research. Dr. Friedman is a member of the APA's PTSD and ASD Practice Guidelines Working Group, and was also appointed an APA Distinguished Fellow. Finally, Dr. Keane serves on the Bioterrorism Task Force of the American Psychological Association and is a member of the Council of Representatives.

Among the National Center staff serving with the Association for the Advancement of Behavior Therapy (AABT), Dr. Resick served as President-elect during FY 2003 and becomes president in November 2003; Drs. Ruzek and Walser served on the Ad Hoc Committee on Terrorism; and Drs. Orsillo, Street, and Jillian Shipherd served on the Program Committee.

A number of Center professionals serve on important advisory boards, including the following individuals:

- Dr. Friedman is vice-chair of the Scientific Advisory Board of the Anxiety Disorders Association of America, and Dr. Ronald Duman is a member.
- Dr. Krystal served on the membership committee of the American College of Neuropsychopharmacology (ACNP). He and Dr. Friedman were section chairs for the ACNP's White Paper Concerning Evidence-Based Responses to Mass Terrorism, and Dr. Bitá Moghaddam was on the program committee.
- Dr. Mark Miller served as Program Chair of the 2003 annual meeting of the Society for Psychophysiological Research.

International Agencies

As recognition of the Center's expertise has grown, staff have increasingly been called upon to provide advice and counsel to agencies outside the U.S. that are dealing with issues of traumatic stress and its aftermath.

- Dr. Friedman was co-chair of a NATO-funded international conference on the impact of war and terrorism on children held in Ljubljana, Slovenia.
- Drs. Keane and Friedman served on the United Nations/ISTSS Committee for the development of guidelines for prevention, practice, and policy concerning trauma interventions following humanitarian crises, social deprivation, abuse, and torture.

TABLE 1A
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127. Veazey, C.H., Blanchard, E.B., Hickling, E.J., & **Buckley, T.C.** Physiological responsiveness of motor vehicle accident survivors with chronic posttraumatic stress disorder. *Applied Psychophysiology and Biofeedback*.
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markers and plasma dopamine beta-hydroxylase activity. *American Journal of Human Genetics*.

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TABLE 2
SCIENTIFIC PRESENTATIONS ON PTSD BY NATIONAL CENTER STAFF
FISCAL YEAR 2003

INTERNATIONAL SOCIETY FOR TRAUMATIC STRESS STUDIES

Baltimore, MD, November 2002

Beckham, J., **Taft, C.T.**, Vrana, S.R., Feldman, M.E., Barefoot, J.C., Moore, S.D., **Mozley, S.L.**, Butterfield, M.L., & Calhoun, P.S. "Ambulatory monitoring and physical health report in veterans with PTSD."

Buckley, T.C., Bedard, M., & Greif, J. "Smoking and psychopathology in a large treatment-seeking cohort."

Buckley, T.C., Kaloupek, D.G., & Rabois-Holohan, D. "Is PTSD associated with elevated resting heart rate and blood pressure?"

Calhoun, P., Wampler, T., Strauss, J., Beckham, J., Karg, R., & **Taft, C.** "Group CBT for treatment of aggression among veterans with PTSD."

Carlson, E.B. "Challenges to assessing traumatic stress histories in complex trauma survivors."

Carlson, E.B., & Dalenberg, C. "Introduction to assessment of adult complex trauma survivors."

Cook, J., **Walser, R.D., & Sheikh, J.** "Female ex-prisoners of war: Over fifty years after captivity."

Creamer, M., & **Litz, B.T.** "Psychiatric morbidity following military deployment."

Evans, C.D., King, L.A., King, D.W., Keehn, M.G., Bachrach, P.S., Davison, E.H., & Spiro, A. "Assessing LOSS: Late-onset stress symptomatology in aging veterans."

Frueh, B.C., Elhai, J., Gold, P., Monnier, J., Magruder, K., **Keane, T.M., & Arana, G.** "Disability compensation-seeking among veterans evaluated for PTSD."

Gulliver, S., **Knight, J.A.,** Munroe, J., Wolfsdorf, B., Baker-Morrisette, S., Mattuchio, T., & Zimering, R. "Secondary trauma in disaster relief clinicians at Ground Zero."

Hugelshofer, D.S., Ouimette, P.C., & **Prins, A.** "Utility of a brief screen for use in primary care settings."

Keane, T.M. "Challenges to assessing trauma exposure and the utility of Criterion A."

Keane, T.M. "Secondary trauma in 9/11 mental health relief workers."

Keane, T.M. "Psychological functioning/adaptation in child and adolescent refugees."

Kimerling, R. "Using the Life Stressor Checklist to assess complex trauma."

Kimerling, R. "Research positions in academic medical centers."

Knight, J.A., Keehn, M., Evans, C., Vogt, D., King, L., King, D., & Foy, D. "Psychological, physical, and neurocognitive problems in PGW veterans."

Knight, J.A., Keehn, M., Vogt, D., Evans, C., King, D., King, L., & Foy, D. "Exposure and gender differences for Persian Gulf War-related stressors."

Koenen, K.C. "The developmental psychobiology of childhood trauma: Part I."

Koenen, K.C. "The developmental psychobiology of childhood trauma: Part II."

Kutter, C.J., Prestel, R.S., Stegman, W.K., Stewart, L.P., Kaloupek, D.G., & Woodward, S.H. "PTSD, depression, and memory impairment in combat veterans."

Kutter, C.J., Prestel, R.S., Stegman, W.K., Stewart, L.P., Kaloupek, D.G., & Woodward, S.H. "Social anxiety and PTSD avoidance/numbing symptoms in combat veterans."

Lauterbach, D., **Leskin, G.A., & Baker, C.** "The relationship between cigarette use, PTSD, depression and panic."

Lerner, F., & Hamblen, J.H. "Searching the PILOTS database: Strategies and techniques."

Litz, B.T. "The use of prolonged exposure: Clinical decision making."

Litz, B.T., & Engel, C. "Brief cognitive behavioral treatment for victims of mass violence."

Loo, C.M. "Racism, trauma, & PTSD: Can racism be traumatic?"

Miller, M.W., Greif, J.L., Dillon, A.L., Wang, J.L., Hall, J.E., Suvak, M., Prestel, R.S., Wolf, E.J., & Litz, B.T. "PTSD and affective ratings of evocative photographs."

Monson, C.M., Guthrie, K.A., Stevens, S., & Schnurr, P.P. "Cognitive-Behavioral Couple's Therapy for PTSD."

Morgan, E., Cuevas, C., Vielhauer, M., Bollinger, A., Berger, J., & **Keane, T.M.** "Trauma exposure and PTSD symptoms in HIV-seropositive adults."

Morland, L.A., Leskin, G.A., & Block, C.R. "Domestic violence and PTSD: Examination of pregnancy outcomes."

Munroe, J., **Fisher, L.M.,** Abblett, M., Hamm, P., & **Quinn, S.** "Complex strategies for complex PTSD."

Munroe, J., Gulliver, S., **Knight, J.A.,** Wolfsdorf, B., Baker-Morrisette, S., Mattuchio, T., & Zimering, R. "Secondary trauma in 9/11 relief workers."

Niles, B.L., Wolf, E., Behr, H., & Kutter, C. "The impact of stressful life events on symptoms of chronic PTSD."

Piwovarczyk, L., **Keane, T.M., & Cajdric, A.** "Impact of September 11 on refugees and those seeking asylum."

Prestel, R.S., Hall, J.R., **Miller, M.W., Greif, J.L., & Kutter, C.J.** “Psychopathy, personality, and PTSD in combat veterans.”

Prestel, R.S., Kutter, C.J., Stegman, W.K., Stewart, L.P., Kaloupek, D.G., & Woodward, S.H. “Cognitive functioning and hippocampal volume in combat veterans.”

Ripley, M., **Monson, C.M., Price, J.L.,** Rodriguez, B., & Warner, R. “Specialized PTSD programs for combat veterans: Who improves?”

Roemer, L., Tull, M.T., Gratz, K.L., McMillan, E., Luterek, J., & **Orsillo, S.M.** “Peri- and post-traumatic responses: Emotional numbing and dysregulation.”

Schnurr, P.P., Lunney, C.A., & Sengupta, A. “Risk factors for the development versus maintenance of PTSD.”

Southwick, S.M. “PTSD and neurobiology of memory.”

Stafford, J., **Street, A.E.,** Hendricks, A., Bruce, T., Mahan, C., **Schnurr, P.P., & Sharkansky, E.** “Sexual harassment, sexual assault, and the health of Reservists.”

Stegman, W.K., Stewart, L.P., Prestel, R.S., Kutter, C.J., Arsenault, N.J., **Kaloupek, D.G., & Woodward, S.H.** “Declarative memory function and hippocampal volume in combat-related PTSD.”

Stewart, L.P., Stegman, W.K., Prestel, R.S., Kutter, C.J., Arsenault, N.J., **Kimble, M.O., Woodward, S.H., & Kaloupek, D.G.** “Hippocampal volume and novelty P3 event-related potentials in combat veterans with and without PTSD.”

Street, A.E., Stafford, J., Bruce, T., Mahan, C., Hendricks, A., Bostock, D., **Schnurr, P.P., & Friedman, M.J.** “The prevalence of military sexual trauma among Reservists.”

Vielhauer, M., Brief, D.J., Bollinger, A., Cuevas, C., Morgan, E., Buondonno, L., & **Keane, T.M.** “PTSD, substance abuse, health status and utilization in HIV+ adults.”

Walser, R.D., Cook, J.A., **Ruzek, J.I., & Sheikh, J.** “The frequency and impact of military and non-military trauma in older adult female veterans.”

Walser, R.D., Loew, D., **Westrup, D.,** Gregg, J., & **Rogers, D.** “Acceptance and Commitment Therapy: Theory and treatment of complex PTSD.”

Warner, R.A., **Monson, C.M.,** Rodriguez, B., & Ripley, M.P. “Examining the role of relationship functioning in treatment outcomes for combat-related PTSD.”

Watson, P.J. “Mass violence and mental health intervention.”

Wattenberg, M., Glynn, S., Unger, W., & **Niles, B.L.** “Groups for war veterans: Models, staging, and meeting challenges.”

Whealin, J.M., Batzer, W., Detwiler, H.F., **Friedman, M.J.,** **Morgan, C.A., Schnurr, P.P.,** Yamamoto, N., & Yim, S. “Gender differences in trauma and cohesion among medical military personnel.”

Woodward, S.H., Kaloupek, D.G., Streeter, C.C., **Kimble, M.O., Stegman, W.K., Stewart, L.P., Kutter, C.J., Prestel, R.S.,** Arsenault, N.J., & Teresi, K. “Hippocampal volumes following combat stress are linked to depression.”

ASSOCIATION FOR THE ADVANCEMENT OF BEHAVIOR THERAPY

Reno, NV, November 2002

Blanchard, E.B., Hickling, E.J., Devineni, T., Veazey, C.H., Galovski, T., Mundy, E., Malta, L.S., & **Buckley, T.C.** “A controlled evaluation of CBT for PTSD in motor vehicle accident survivors.”

Buckley, T.C. “Research in response to disasters and terrorism: Challenges, critical issues, and the RAPID-grant funding mechanism.”

Buckley, T.C., Bedard, M., & Greif, J. “Smoking and psychopathology in a large treatment-seeking cohort.”

Carvalho, K.J., **Walser, R.D., & Ruzek, J.I.** “Treatment of PTSD and substance abuse: Use of the Seeking Safety protocol with male veterans.”

Levitt, J.T., Brown, T.A., **Orsillo, S.M., & Barlow, D.H.** “Does acceptance reduce avoidance among patients with panic disorder?”

Liverant, G., Hofmann, S.G., & **Litz, B.T.** “Predictors of adjustment after the September 11th terrorist attack in college students.”

Luterek, J.A., **Orsillo, S.M., & Marx, B.P.** “Emotional responding in women childhood sexual abuse survivors:

Emotional experience, written and facial expression to positive and negative film stimuli.”

Luterek, J.A., **Plumb, J.C.,** Tull, M., Roemer, L., & **Orsillo, S.M.** “Psychometric properties of a new measure of emotional numbing: Preliminary findings.”

Mithal, A.R., Stone, E.A., **Walser, R.D., & Ruzek, J.I.** “Seeking safety: Adaptation of a PTSD and substance abuse intervention for women in an inpatient environment.”

Orsillo, S.M. “Next-step treatments for PTSD: What should we do with nonresponders, comorbid conditions, and complicating factors?”

Orsillo, S.M., Plumb, J.C., Roessner, B.M., & Batten, S.V. “Emotional functioning among women with PTSD: An experimental analysis of multiple channels of responding to positive and negative stimuli.”

Orsillo, S.M., Roemer, L., & Barlow, D.H. “Developing an integrative, acceptance-based treatment for GAD.”

Palyo, S.A., Beck, J.G., Gudmundsdottir, B., & **Shipherd, J.C.** “Emotional functioning in pain subtypes after a motor vehicle accident.”

Pollock, R.A., Suvak, M.K., & Litz, B.T. "Auditory perception in PTSD."

Prins, A., & Callaghan, C. "Functional analytic psychotherapy as an adjunctive treatment for a client meeting criteria for PTSD."

Shipherd, J.C., & Beck, J.G. "Thought suppression in PTSD."

Suvak, M.K., Hofmann, S.G., Litz, B.T., Hall, J.R., & Wang, J.L. "Hemispheric perceptual asymmetries and social anxiety."

Suvak, M.K., Hofmann, S.G., Litz, B.T., Hines, D.A., Carey, J.J., Apgar, C.M., Khalidy, S., & Santos, S.J. "Memory bias for emotional faces in social anxiety."

Taft, C.T., Murphy, C.M., DeDeyn, J.M., Musser, P.M., King, L.A., & King, D.W. "PTSD symptoms among female partners of men in CBT for abusive behavior."

Tanner, L.R., Shipherd, J.C., & Beck, J.G. "The White Bear Suppression Inventory and relationships with PTSD."

Thorndike, F.P., Wang, J.L., Williams, L.E., Litz, B.T., Bryant, R.A., Suvak, M.K., & Hall, J.R. "Brief cognitive-behavioral treatment for victims of mass violence."

OTHER

Alagille, D., Baldwin, R.M., Ogier, L., Kula, N.S., Baldessarini, R.J., & Tamagnan, G. "Synthesis and monoamine transporter affinity of 6-azabicyclo[3.2.2]nonane (rearranged tropane) ethers." National Meeting of the American Chemical Society, New York, NY, September 2003.

Alagille, D., Baldwin, R.M., & Tamagnan, G. "Synthesis and SAR of aromatic-ethynyl-aromatic derivatives with potent mGluR5 antagonist activity." National Meeting of the American Chemical Society, New York, NY, September 2003.

Baldwin, R.M., Chaly, T., Tamagnan, G., Zoghbi, S.S., Staley, J.K., Al-Tikriti, M.S., Hou, Y.K., Gu, X.-H., Zong, R., Baldessarini, R.J., Neumeyer, J.L., & Garg, P.K. "PET imaging of N-(3-[18F]fluoropropyl)-2 β -carbomethoxy-3 β -(4-bromophenyl)nortropine ([18F]FPCBT, BRL-306) in baboon (NUCL #137)." National Meeting of the American Chemical Society, New Orleans, LA, March 2003.

Bracha, H.S. "Evolutionary biology and posttraumatic stress disorder." Hawaii Pacific University, Honolulu, HI, September 2003.

Bracha, H.S., Bernstein, D.M., Gusman, F., Yamashita, J., Chang, K.B.T., & Ralston, T. "Pathological stress rings in teeth, proposed bio-markers of experienced stress in early brain development, and research implication in GWS and PTSD." North Atlantic Treaty Organization Advanced Research Workshop: Formal Descriptions of Developing Systems, Honolulu, HI, October 2002.

Bracha, H.S., Ralston, T., Yamashita, J.M., Nelson, G., Bernstein, D.M., Friszer, S.M., & Person, D.A. "Biomedical approaches to PTSD, and related stress disorders: Insights from new research." Annual Meeting of the American Academy Of Pediatrics, Hawaii Chapter, Kauai, HI, May 2003.

Brenner, E., Baldwin, R.M., & Tamagnan, G. "Synthesis of a new 5-IA precursor using trimethylsilyl iodide as benzyloxycarbonyl deblocking agent." National Organic Symposium, Indiana University, Bloomington, IN, June 2003.

Brenner, E., Tamagnan, G., Al-Tikriti, M.S., Amici, L., Zoghbi, S.S., & Baldwin, R.M. "5-Iodo-3-pyridinol (5-IP), putative metabolite of (S)-5-[123I]iodo-3-(2-azetidinyloxy) methoxy pyridine (5-IA)." International Symposium on Radiopharmaceutical Chemistry, Sydney, Australia, August 2003.

Buckley, T.C. "PTSD and physical health: Clinical research findings." Boston University School of Medicine, Boston, MA, April 2003.

Buckley, T.C., & Holohan, D. "PTSD, smoking, and operant reinforcement." Annual Meeting of the American Psychological Association, Toronto, Canada, August 2003.

Carlson, E.B. "Special issues in forensic assessment of trauma responses." Annual Congress of the Australian and New Zealand Association of Psychiatry, Psychology, and Law, Fremantle, Australia, September 2003.

Carlson, E.B. "Trauma impact and assessment." Australian Centre for Posttraumatic Mental Health, Sydney, Australia, September 2003.

Donegan, N.H., Sanislow, C.A., Blumberg, H.P., Fulbright, R.K., Skudlarski, P., Lacadie, C., Olson, I.R., Gore, J.C., McGlashan, T.H., & Wexler, B.E. "Brain mechanisms of emotional dysregulation and hypervigilance in BPD." New Hope for Borderline Personality Disorder: From Science to Service, Treatment and Research Advancements Association for Personality Disorders, National Institute of Mental Health, Bethesda, MD, December 2002.

Donegan, N.H., Sanislow, C.S., Fulbright, R.K., Blumberg, H.P., Olson, I.R., Gore, J.C., McGlashan, T.H., & Wexler, B.E. "An fMRI study of BPD: Neural substrates of emotional dysregulation." Society for Neuroscience, Orlando, FL, November 2002.

Donegan, N.H., Sanislow, C.S., Blumberg, H.P., Fulbright, R.K., Skudlarski, P., Gore, J.C., McGlashan, T.H., & Wexler, B.E. "Neural substrates of emotional dysregulation in borderline personality disorder." Annual Meeting of the American Psychiatric Association, San Francisco, CA, May 2003.

Friedman, M.J. "Pharmacotherapy: Prevention and treatment of PTSD." Annual Meeting and Science Innovation Exposition of the American Association for Advancement of Science, Denver, CO, February 2003.

Friedman, M.J. "Acute post-traumatic reactions." Annual Meeting of the Anxiety Disorders Association of America, Toronto, Canada, March 2003.

Friedman, M.J. "Post-war communities overcoming trauma and loss." NATO Conference on the Importance of Psychosocial Wellbeing of Children in the Post-War Period for Social Reconstruction and Stability of Terrorist and War-Related Regions, Ljubljana, Slovenia, June 2003.

Friedman, M.J. "Bridging sciences to services." Creating a Road Map for Disaster Preparedness: Strengthening State Capacity for Disaster Mental Health and Substance Abuse Response, Substance Abuse and Mental Health Services Administration, Washington, DC, June 2003.

Fujita, M., **Southwick, S.M.**, DeNucci, C.C., Zoghbi, S.S., **Dillon, M.S.**, **Baldwin, R.M.**, Bozkurt, A., Kugaya, A., Seibyl, J.P., & Innis, R.B. "Central type benzodiazepine receptors in gulf war veterans with posttraumatic stress disorder." Annual Meeting of the Society of Nuclear Medicine, New Orleans, LA, June 2003.

Hamblen, J.L., **Norris, F.**, **Watson, P.J.**, **Friedman, M.J.**, & Pfefferbaum, B. "Preparing for disaster: Provider perspectives on the mental health response to the Oklahoma City Bombing." Disaster Psychiatry Outreach, Washington, DC, April 2003.

Hausner, S.H., **Baldwin, R.M.**, & **Tamagnan, G.** "Synthesis of cyclopentadienyl rhenium tricarbonyl substituted benzoxazoles and their biological evaluation." National Meeting of the American Chemical Society, New York, NY, September 2003.

Jahn, A.L., **Putnam, K.M.**, Schaefer, H.S., Mueller, C.J., Benca, R.M., Kalin, N.H., & Davidson, R.J. "The relationship between hippocampal activation, emotion, and stress in depression." Society for Research in Psychopathology, San Francisco, CA, October 2002.

Jankowski, M.K., & **Hamblen, J.L.** "Cognitive Behavioral Treatment for PTSD in persons with severe mental illness." Integrating Trauma, Substance Abuse and Mental Health, Augusta, ME, May 2003.

Kaufman, J., DeSena, A.D., Murphy, R.A., **Douglas-Palumberi, H.**, Blau, G., & Kelly, B. "SAFE homes program evaluation." State of Connecticut Department of Children and Families Commissioners and Executive Staff, Hartford, CT, February 2003.

Kaufman, J., Jackowski, M., Staib, L., **Douglas-Palumberi, H.**, & Anderson, A. "Corpus callosum in maltreated children with PTSD: a diffusion tensor imaging study." Annual Meeting of the American College of Neuropsychopharmacology, San Juan, Puerto Rico, December 2002.

Keane, T.M. "Psychological treatment for PTSD." Annual Meeting and Science Innovation Exposition of the American Association for Advancement of Science, Denver, CO, February 2003.

Keane, T.M. "Recent advances in the psychological assessment and treatment of PTSD." Annual Meeting of the Anxiety Disorders Association of America, Toronto, Canada, March 2003.

Keane, T.M. "Group interventions for the treatment of PTSD: Searching for a method and model for reaching the trauma exposed population." Conference on Trauma and Operational Stress, Ste. Anne's Centre, Veterans Affairs Canada, Montreal, Canada, May 2003.

Kimble, M.O., **Kaufman, M.**, & **Kaloupek, D.G.** "Neurophysiology varies as a function of dissociative self-reports." International Society for the Study of Dissociation, Baltimore, MD, November 2002.

Kimerling, R. "Interpersonal violence among California women." California Office of the Attorney General, Sacramento, CA, August 2003.

Kimerling, R. "Intimate partner violence and welfare utilization in California." California Department of Social Services, Sacramento, CA, September 2003.

King, D.W., & **King, L.A.** "Risk, resilience, prevention and outcome of PTSD in combat-exposed veterans." Annual Meeting of the Anxiety Disorders Association of America, Toronto, Canada, March 2003.

King, D.W., **King, L.A.**, & **Vogt, D.S.** "Measurement and validation of psychosocial risk and resilience factors associated with physical and mental health and health-related quality of life in Gulf War veterans." Force Health Protection Research Program, San Diego, CA, February 2003.

King, D.W., **King, L.A.**, **Vogt, D.S.**, **Knight, J.A.**, Foy, D.W., & **Evans, C.D.** "War-zone stressors and health outcomes among Gulf War veterans." European Conference on Traumatic Stress, Berlin, Germany, May 2003.

Koenen, K.C. "Domestic violence is associated with environmental suppression of IQ in young children." Developmental Biopsychiatry Research Program, McLean Hospital and Harvard Medical School, Belmont, MA, January 2003.

Koenen, K.C. "Domestic violence is associated with environmental suppression of IQ in young children." The Trauma Center, Boston, MA, January 2003.

Koenen, K.C. "Domestic violence is associated with environmental suppression of IQ in young children." Center for Youth Violence Prevention, Columbia University, New York, NY, February 2003.

Koenen, K.C. "Correlation or causation? Examining environmental effects on child outcomes in genetically informed designs." 70th Anniversary of the Society for Research in Child Development, Tampa, FL, April 2003.

Koenen, K.C. "Domestic violence is associated with environmental suppression of IQ in young children." 70th Anniversary of the Society for Research in Child Development, Tampa, FL, April 2003.

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- Koenen, K.C.** "Impact of domestic violence on children: Domestic violence is associated with environmental suppression of IQ in children." International Family Violence Research Conference, Portsmouth, NH, July 2003.
- Krystal, J.H.** "Extreme stress exposure: from neurobiology to pharmacotherapy." Annual Meeting of Anxiety Disorders Association of America, Toronto, Canada, March 2003.
- Krystal, J.H.** "NMDA receptor function and the risk for heavy drinking." Glutamate and Disorders of Cognition and Motivation, New York Academy of Sciences, New Haven, CT, April 2003.
- Krystal, J.H.** "Glutamatergic pharmacotherapies." Glutamate and Disorders of Cognition and Motivation, New York Academy of Sciences, New Haven, CT, April 2003.
- Krystal, J.H.** "Glutamate and alcoholism." University of Mississippi Medical Center, Jackson, MI, June 2003.
- Krystal, J.H.** "Executive functions in psychiatric disorders. Executive Function: Current knowledge and future research funding opportunities." Human Brain Mapping Meeting, New York, NY, June 2003.
- Krystal, J.H.** "Therapeutic implications of the disinhibitory and disconnectivity effects of NMDA receptor antagonists." Integrating Progress in the Genetics and Neuropharmacology of Schizophrenia: A Cold Spring Harbor Symposium, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, September 15, 2003.
- Krystal, J.H.** "Therapeutic implications of the NMDA receptor antagonist psychosis." Institute of Pharmacology, Polish Academy of Sciences, Krakow, Poland, September 2003.
- Krystal, J.H.** "Glutamatergic contributions to neuro-psychiatric diseases." Annual Hans Jörg Weitbricht Symposium, Bayer-Vital, Leverkusen, Germany, September 2003.
- Krystal, J.H.,** Abi-Saab, W., Perry, E., D'Souza, D.C., Liu, N., McDougall, L., Belger, A., Levine, L., & Breier, A. "Modulation of ketamine-induced working memory deficits in healthy human subjects by the group II metabotropic agonist, LY354740." Annual Meeting of the American College of Neuropsychopharmacology, San Juan, PR, December 2002.
- Lagana, L., **Whealin, J., & Vogt, D.** "The relationship between childhood gender harassment and self-esteem." 111th Convention of the American Psychological Association, Toronto, Canada, August 2003.
- Lindley, S.,** Her, S., Cao, Y., Selwood, S., Schatzberg, A.F., Murphy, G.M., & Lyons, D.M. "Glucocorticoid regulation of gene expression in the medial prefrontal cortex and striatum." Annual Meeting of the Society for Neuroscience, Orlando, FL, November 2002.
- Loo, C.M.** "Compensation and Pension examinations as a high stakes test: Construction and validation of the Race-Related Stressor Scale (RRSS) to address gaps in assessing work-related stressors for minorities." Annual Meeting of the Diversity Challenge Conference, Institute for the Study and Promotion of Race and Culture, Boston, MA, October 2002.
- Mechanic, M.B., Castillo, R.R., Marelich, W., & **Resick, P.A.** "Cognitive Distortion Index: A measure of survival-based alterations in cognitions among battered women." University of Kentucky Center for Research on Violence Against Women, Lexington, KY, September 2003.
- Miller, M.W., & Greif, J.L.** "Is startle exaggerated in PTSD?" Society for Psychophysiological Research, Washington, DC, October 2002.
- Morland, L.A.** "Trauma, PTSD and female health: An examination of new directions in research." Annual Meeting of the Hawaiian Psychological Association, Honolulu, HI, October 2002.
- Morland, L.A.,** Miyahira, S., & **Pierce, K.** "Telemedicine and PTSD in the Pacific Islands." National MIRECC Conference, Portland, OR, May 2003.
- Morland, L.A.,** Goebert, D., Fratarelli, L., Cayetano, R., & **Friedman, M.J.** "Trauma, stress & pregnancy." Global Pacific Health Conference, Honolulu, HI, June 2003.
- Mueller, C.J., Jahn, A.J., **Putnam, K.M.,** Skolnick, A.J., Benca, R.M., & Davidson, R.J. "EEG activity during anticipation of reward and threat in depression." Society for Research in Psychopathology, San Francisco, CA, October 2002.
- Neumeyer, J.L., Zhang, A., Van Vliet, A., **Staley, J.K.,** Al-Tikriti, M.S., Ellis, S., **Baldwin, R.M., & Tamagnan, G.** "MCL 118-A potent kappa opioid receptor ligand- evaluation as an in vivo SPECT radioligand." Annual Meeting of the College of Problems in Drug Dependence, Bal Harbour, FL, June 2003.
- Norris, F.** "Culturally competent research on trauma and PTSD." American Association of Clinical Psychiatrists, Las Vegas, NV, October 2002.
- Norris, F.** "Twenty years of disaster research: What do we know and where do we go from here?" Disaster Mental Health Institute, Rapid City, SD, September 2003.
- Prigerson, H.** "The State of Grief Research." Center for the Advancement of Health, Washington, DC, May 2003.
- Prigerson, H.** "State of the Art presentation on bereavement research." Soros Open Society Institute, Lake Tahoe, CA, July 2003.
- Putnam, K.M.,** Schaefer, H.S., Jahn, A.J., Mueller, C.J., Benca, R.M., & Davidson, R.J. "Neural activation in response to affective images as a predictor of symptom reduction in depression: An event-related fMRI study." Society for Research in Psychopathology, San Francisco, CA, October 2002.
- Putnam, K.M.,** Jahn, A.J., Schaefer, H.S., Mueller, C.J., Benca, R.M., & Davidson, R.J. "Diurnal cortisol levels and hippocampal activation during the viewing of negative affective images in depression: An event-related functional magnetic resonance imaging study." Society for Neuroscience, Orlando, FL, November 2002.
- Rasmusson, A.M.,** Schultz, R., **Aikins, D., Southwick, S.M., & Arnsten, A.** "Impaired performance of frontal lobe-dependent neuropsychological tasks in combat-related
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PTSD." Annual Meeting of the American College of Neuropsychopharmacology, San Juan, PR December 2002.

Rasmusson, A.M., Schultz, R., Aikins, D., Southwick, S.M., & Arnsten, A. "Impaired performance on frontal lobe-dependent neuropsychological tasks in combat-related PTSD." Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 2003.

Rasmusson, A., Mitchell, K., Krishnan-Sarin, S., Aikins, D., & Johnson, M. "Deleterious effects of smoking withdrawal on frontal lobe mediated behaviors and blood flow: An fMRI Study." Building Interdisciplinary Research Careers in Women's Health Symposium, Office of Research on Women's Health, National Institute of Health, Washington, DC, July 2003.

Resick, P.A. "Suggestions for research on clinical sequelae and treatment: From what we know to where we should go." Toward a National Research Agenda on Violence Against Women, Center for Research on Violence Against Women, University of Kentucky, Lexington, KY, September 2003.

Rhatigan, D.L., Street, A.E., & Lowe, V. "Understanding the process of leaving abusive relationships: A critical review and update on the literature." International Family Violence Research Conference, Portsmouth, NH, July 2003.

Rogers, D.L. "Acceptance & commitment therapy as an intervention for PTSD." VISN 21 Social Work Conference, Palo Alto, CA, May 2003.

Ruzek, J.I. "Models of early intervention following trauma." European Conference on Traumatic Stress, Berlin, Germany, May 2003.

Schnurr, P.P. "Trauma and physical health." Annual Zurich Psychotraumatology Meeting, Zurich, Switzerland, April 2003.

Schnurr, P.P. "Progress in trauma research and therapy: Do we get the picture right?" European Conference on Traumatic Stress, Berlin, Germany, May 2003.

Schnurr, P.P. "Emerging evidence on the physical health consequences of PTSD." Family Violence Research Conference, University of New Hampshire, Durham, NH, July 2003.

Southwick, S.M. "The neurobiology of memory disturbance in PTSD." BRIDGES: A Community Support System, Inc., Milford, CT, February 2003.

Staley, J.K., Petrakis, I., Gottschalk, P.C., Zoghbi, S., Verhoeff, N.P., Seibyl, J.P., Vandyck, C., Innis, R.B.,

Baldwin, R.M., & Krystal, J.H. "Alterations in GABA-A receptor binding in ethanol dependence: clinical correlates." Annual Meeting of the Society of Neuroscience, Orlando, FL, November 2002.

Swales, P. "Treatment of anxiety disorders." VA Palo Alto Health Care System, Palo Alto, CA, February 2003.

Taft, C.T., Murphy, C.M., DeDeyn, J.M., Musser, P.M., & King, L.A. "Psychological abuse and PTSD among partners of men in treatment for relationship violence." International Family Violence Research Conference, Portsmouth, NH, July 2003.

Tamagnan, G., Neumeyer, J.L., Zhang, A., Van Vliet, A., Staley, J.K., Al-Tikriti, M.S., Ellis, S., & Baldwin, R.M. "Radiolabeling of the kappa-opioid receptor ligand [123I]MCL-118 and in vivo evaluation in rats and nonhuman primates." International Symposium on Radiopharmaceutical Chemistry, Sydney, Australia, August 2003.

van Dyck, C.H., Malison, R.T., **Staley, J.K.**, Jacobsen, L.K., Seibyl, J.P., Laruelle, M., **Baldwin, R.M.**, Innis, R.B., & **Gelernter, J.** "Central serotonin transporter availability measured with [123I]B-CIT SPECT in relation to serotonin transporter genotype." Annual Meeting of the Society of Nuclear Medicine, New Orleans, LA, June 2003.

Walser, R.D., & Ruzek, J.I. "Innovations in MIRECC PTSD education: Reaching beyond the medical centers - how the MIRECC's use technology for education." National MIRECC Conference, Portland, OR, May 2003.

Watson, P.J. "Evidence-based interventions following disasters." National Association of State Mental Health Directors, Alexandria, VA, September 2003.

Westrup, D. "Sexual trauma: Clinical considerations." Trauma in the Community, VISN 4 MIRECC and University of Pittsburgh School of Medicine, Pittsburgh, PA, October 2002.

Westrup, D. "Treatment of sexual trauma." Trauma in the Community, VISN 4 MIRECC and University of Pittsburgh School of Medicine, Pittsburgh, PA, October 2002.

Whealin, J.M. "A conceptual model for trauma prevention." New Directions in Prevention and Treatment for Trauma-Related Disorders, Annual Meeting of the Hawaii Psychological Association, Honolulu, HI, October 2002.

Whealin, J.M., Lagana, L., & Jackson, J.L. "Unwanted sexual attention: Gender-specific frequency and related emotional reaction." Annual Meeting of the American Psychological Association, Toronto, Canada, August 2003.

**TABLE 3
NATIONAL CENTER FOR PTSD RESEARCH FUNDING
FISCAL YEAR 2003**

PROJECTS APPROVED AND FUNDED

VA Cooperative Studies

Principal Investigators	Title of Project	Years	FY 03 Funding	Total Award
Schnurr Friedman Engel	CSP#494: A Randomized Clinical Trial of Cognitive-Behavioral Therapy for Women	2000 – 2004	\$1,411,274	\$5,014,368

VA Merit Review

Principal Investigators	Title of Project	Years	FY 03 Funding	Total Award
Bracha	Clinical Research Bio-Markers for Estimating Early Stress	2000 – 2003	\$74,700	\$447,000
Krystal	NMDA Dysregulation in Alcoholism	2001 – 2005	\$139,600	\$409,400
Rasmusson	HPA Reactivity in Men and Women with Chronic PTSD	2001 – 2004	\$101,400	\$309,700

Other VA Sources

Principal Investigators	Title of Project	Funding Source	Years	FY 03 Funding	Total Award
Baldwin	PET and SPECT radiotracers for imaging the Serotonin and Acetylcholine Systems	REAP	1999 – 2004	\$10,000	\$50,000
Fotiades Friedman	Evaluating a Bio-Terrorism Preparedness Campaign for Veterans	HSR&D	2003 – 2006	\$96,670	\$1,400,000
Gelernter	Genetic Studies of Anxiety Disorders and Related Phenotypes	VA	2002 – 2007	\$145,000	\$725,000
Gelernter	Genetic Studies of Dual Diagnosis Populations	MIRECC	1997 – On-going	\$75,000	\$370,227
Gelernter	Neuronal Mechanisms and Treatment Response in Depression	REAP	1999 – 2004	\$199,500	\$1,600,000
Krystal	West Haven VA Medical Center Alcoholism Research Center	Medical Research	1999 – 2003	\$290,700	\$1,400,000
Moghaddam	Biomedical Actions of Antipsychotic Drugs	VA	2002 – 2012	\$500,000	\$2,000,000

Monson	Cognitive Processing Therapy for Military-related PTSD	CSP Research Development Award	2003 – 2006	\$106,306	\$327,000
Rosenheck	Collaborative Initiative on Chronic Homelessness	VA, HUD, HHS	2003 – 2007	\$600,000	\$1,800,000
Street	Military Sexual Trauma Among the Reserve Components of the Armed Forces	VA	2001 – 2003	\$161,163	\$1,196,067

National Institute of Mental Health

Principal Investigators	Title of Project	Years	FY 03 Funding	Total Award
Baldwin	Piperidine Derivatives as Radiotracers for Serotonin Transporters	2003 – 2005	\$100,000	\$200,000
Buckley	CBT for PTSD Among Public Sector Consumers	2002 – 2005	\$100,000	\$300,000
Duman	Antidepressants: Signal Transduction and Gene Expression	2000 – 2005	\$200,000	\$1,400,000
Duman	Neurobiological Basis of Major Psychiatric Disorders	2002 – 2006	\$1,162,826	\$6,139,344
Kaufman	Corpus Callosum in Maltreated Children with PTSD	2002 – 2007	\$322,049	\$1,610,893
Keane	Postdoctoral Research Training in Posttraumatic Stress Disorder	1996 – 2006	\$178,000	\$787,000
Keane	Treating Torture Among Bosnian Refugees	1999 – 2003	\$198,000	\$730,000
King, L.	Conference on Innovations in Trauma Research Methods	2003 – 2008	\$65,000	\$325,000
Krystal	Glutamatergic Mechanism in Cognition and Psychosis	1998 – 2003	\$95,000	\$325,000
Leskin	Sleep in PTSD/Panic Disorder: A Multimodal, Naturalistic Study	2003 – 2007	\$312,500	\$1,250,000
Lipschitz	Modifiable Risk Factors for PTSD in Urban Adolescents	2000 – 2005	\$146,381	\$675,537
Litz	Emotional Processing in PTSD	2001 – 2004	\$126,000	\$325,000
Litz	Brief Cognitive-Behavioral Treatment for Victims of Mass Violence	2002 – 2004	\$170,288	\$425,000
McDonagh-Coyle	Brief Integrative Therapy for PTSD	2001 – 2003	\$32,461	\$200,000
Miller	Circadian Effects on the Human Startle Reflex	2001 – 2003	\$63,000	\$63,000
Miller	Startle Reflex Amplitude and Cortisol in PTSD	2003 – 2005	\$63,000	\$126,000
Moghaddam	Glutamate and Prefrontal Cortex Function	1999 – 2004	\$108,680	\$594,000
Moghaddam	Translational Studies on Cognitive Flexibility	2001 – 2004	\$250,000	\$750,000
Mueser Rosenberg	Cognitive-Behavioral Treatment of PTSD in SMI Clients	2002 – 2004	\$250,000	\$750,000
Norris	The Social and Cultural Dynamics of Disaster Recovery	2002 – 2004	\$189,000	\$2,000,000

Norris	Toward Developing Postdisaster Community Interventions	2002 – 2005	\$110,000	\$328,822
Prigerson	Psychiatric Disorders in Dying Patients and their Survivors	2002 – 2006	\$484,809	\$1,913,908
Prigerson	Traumatic Grief: Criteria, Risks, Outcomes	1999 – 2003	\$238,000	\$989,000
Resick	Cognitive Processes in PTSD: Treatment	2000 – 2005	\$240,889	\$1,926,885
Street	Characteristics of Persons at Risk for Trauma Exposure	2002 – 2004	\$50,000	\$100,000

Other Non-VA Sources

Principal Investigators	Title of Project	Funding Source	Years	FY 03 Funding	Total Award
Baldwin	Dopamine Transporter Imaging With Fluorine-18 PET	NINDS	2002 – 2004	\$90,763	\$183,362
Behar	Use of DNA Microarrays in Conjunction with Magnetic Resonance Spectroscopy to Identify Regulation Sites of GABA Metabolism In Vivo	NARSAD	2001 – 2003	\$30,000	\$60,000
Behar	NMR Studies of GABA Regulation In Vivo	NINDS	2001 – 2005	\$263,659	\$1,085,851
Bracha Noguchi	Imaging Study of Crown Ameloblast Stress as a Marker for Early Experiences of Trauma in PTSD and Depression	The Japan Ministry of Education and Technology	2001 – 2003	\$28,000	\$56,000
Bracha	Validating a Laboratory Procedure for Estimating Early Deleterious Life Experiences	NARSAD	1999 – 2003	\$25,000	\$100,000
Buckley	Behavioral Pharmacology of Smoking in Anxiety Disorders	NIDA	2003 – 2008	\$100,026	\$443,425
Ciraulo Keane LoCastro	Behavioral and Psychopharmacological Treatment of Alcohol Abuse	NIAAA	1997 – 2003	\$350,000	\$2,800,000
Friedman Watson	Best Practices in Disaster Mental Health	SAMHSA/ CMHS	2001 – 2004	\$410,000	\$1,265,000
Gelernter	Thai-U.S. Drug Dependence Genetics Research Training Grant	NIH/NIDA/ Fogerty International Center	2002 – 2007	\$184,667	\$1,846,678
Gelernter	Family Controlled Linkage Disequilibrium Studies of Alcohol Dependence	NIH/NIAAA	2002 – 2007	\$689,316	\$3,446,581
Gelernter	Guided Family-Controlled Linkage Disequilibrium Scan for Alcohol Dependence and PFC-Related Endophenotypes	NIH/NIAAA	2001 – 2006	\$60,000	\$700,000
Gelernter	Genetics of Cocaine Dependence	NIH/NIDA	1999 – 2004	\$1,660,113	\$6,540,123

Gelernter	Approaches to the Genetics of Substance Dependence	NIH/NIDA	2003 – 2008	\$138,307	\$720,000
Gelernter	Opioid Dependence Genetics in Thai Populations	NIH/NIDA	2000 – 2005	\$142,132	\$284,399
Gelernter	Genetics of Opioid Dependence	NIH/NIDA	2000 – 2005	\$729,885	\$3,116,115
Hamblen	Project Liberty: Enhanced Services	Research Foundation for Mental Hygiene, Inc.	2003 – 2003	\$88,031	\$105,060
Johnson	Effects of Aging on Memory for Source of Information	NIH	2000 – 2004	\$298,510	\$1,245,094
Johnson	Aging and Memory: fMRI Studies of Component Processes	NIH/Univ. of CA at Berkeley	2000 – 2003	\$103,036	\$309,249
Johnson	Cognitive and Neural Mechanisms of Conflict and Control	NIH/Princeton Univ.	2000 – 2004	\$116,480	\$606,627
Kaufman	SAFE Homes Program Evaluation	State of CT – Department of Children and Families	2003 – 2003	\$29,700	\$59,400
Kaufman	Are Child-, Adolescent-, and Adult-Onset Depression One and the Same Disorder?	NARSAD	2001 – 2003	\$27,121	\$54,204
Keane	Integrating Substance Abuse and PTSD Treatment with HIV Care to Improve Adherence and Outcome and to Reduce Health Care Utilization and Costs	SAMHSA	1998 – 2003	\$789,000	\$3,100,000
Keane Piwowarczyk Grodin	Cognitive-Behavioral Treatment for War Traumatized Refugees: Project Welcome	DHHS Office of Refugee Resettlement	2000 – 2004	\$429,000	\$2,000,000
Keane Saxe	Treatment/Services Development Center for Medical Trauma and Refugee Trauma in Children	SAMHSA	2000 – 2004	\$440,000	\$1,500,000
Kimerling	Interpersonal Violence	State of California	2003 – 2003	\$13,462	\$13,462
Kimerling	PTSD in the 2001 California Women’s Health Survey	California Public Health Institute	2002 – 2003	\$9,600	\$9,600
Krystal	Amino Acid Neurotransmitter Dysregulation in Alcoholism	NIH/NIAAA	1999 – 2004	\$75,000	\$524,040
Krystal	Naltrexone Blockade of NMDA Antagonist Intoxication in Humans	NIH/NIAAA	2000 – 2003	\$150,000	\$450,000
Litz	The Effects of Psychological Debriefing on Soldiers Deployed on a Peacekeeping Mission	DoD	2001 – 2004	\$75,000	\$918,151

Mazure	Preventing and Treating Substance Abuse Disorders in Women with PTSD	NIDA	2001 – 2006	\$83,000	\$2,500,000
Moghaddam	Stress and Prefrontal Cortex Function	NIDA	2003 – 2007	\$193,750	\$775,000
Moghaddam	Neurotransmitter Dynamics Associated with rTMS in Primates	NARSAD	2001 – 2003	\$50,000	\$100,000
Morgan	Psychobiological Assessment of High Intensity Military Training	DoD	1997 – On-going	\$0	\$365,000
Nestler Duman	Neurobiology of Drug Addiction	NIDA	1998 – 2003	\$109,000	\$250,000
Prigerson	Psychiatric Disorders in Dying Patients and Their Caregivers	Soros Foundation Project on Death in America	2002 – 2004	\$76,500	\$153,000
Prigerson	Bereavement Reactions in Surviving Caregivers of End Stage Renal Disease Patients	Schwartz Foundation	2001 – 2003	\$15,000	\$80,000
Prigerson	Promoting Research Participating among Black and Hispanic Older Adults	NIA	2002 – 2003	\$57,244	\$57,244
Prigerson	Enhancing Goal Elicitation and Attainment: Treatment Decision Making and Mental Health	RAND/Hartford Foundations	2003 – 2005	\$94,000	\$188,000
Putnam	Anhedonia and Major Depression: Event-Related fMRI and Daily Experience of Mood	National Alliance for Research on Schizophrenia and Depression	2002 – 2004	30,000	60,000
Putnam	The Regulation of Negative Affect and Borderline Personality Disorder: fMRI and Experience Sampling	Borderline Personality Disorder Research Foundation	2003 – 2005	75,000	150,000
Rasmusson	Effects of POW Stress on NPY Physiology: Potential Long-Term Health Consequences	Center for Naval Analysis	2001 – 2004	\$ 70,704	\$212,113
Staley	PET and SPECT Imaging in Alcoholic Smokers	NIH/NIAA	1999 – 2004	\$116,722	\$604,239
Tamagnan Baldwin Krystal	Development of PET and SPECT Ligands for mGluR5 Imaging	NIDA/NIMH	2002 – 2007	\$149,165	\$1,257,241

APPLICATIONS PENDING APPROVAL

Principal Investigators	Title of Project	Funding Source	Years	Total Award
Donegan	Dysregulated Emotion in Borderline Personality Disorder	NIMH	2004 – 2008	\$1,000,000
Friedman Schnurr	Strategies for Treating PTSD	NIMH	2004 – 2009	\$2,475,547
Goebert Morland	Perinatal Mental Health Among Women in the Pacific	NIMH	2004 – 2007	\$150,000
King, D. King, L.	New Longitudinal Methods for Trauma Research	NIMH	2004 – 2007	\$750,000
Krystal Rosenheck	Risperidone Treatment for Refractory Combat-Related Post-Traumatic Stress Disorder	VA CSP	2004 – 2006	\$6,416,000
Kubany	Cognitive Trauma Therapy for Women with PTSD	HSR&D	2004 – 2006	\$595,000
Morland	Telemedicine and Anger Management Groups for PTSD Veterans in the Hawaiian Islands	HSR&D	2004 – 2007	\$525,704
Niles	PTSD and Chronic Pain: Longitudinal Evaluation of Mutual Maintenance	VA Merit Review	2004 – 2007	\$415,925
Niles Mori	Telehealth Intervention to Promote Exercise for Diabetes	National Institute of Diabetes and Digestive and Kidney Diseases	2004 – 2009	\$2,948,594

TABLE 4
EDUCATIONAL PRESENTATIONS ON PTSD BY NATIONAL CENTER STAFF
FISCAL YEAR 2003

INTERNATIONAL SOCIETY FOR TRAUMATIC STRESS STUDIES

Baltimore, MD, November 2002

Friedman, M.J. “Expert clinical consultation.”

Friedman, M.J. “Developing networks in the field of traumatic stress.”

Koenen, K.C. “All you ever wanted to know about applying for training grants.”

Pivar, I., & Spear, B. “Complicated grief and traumatic loss.”

Riney, S.J., & Young, H.E. “An intervention for teaching and integrating communication and conflict resolution skills.”

Ruzek, J.I. “Models of early intervention following trauma.”

Ruzek, J.I. “Improving debriefing.”

Ruzek, J.I., Bisson, J., Kassam-Adams, N., Shalev, A., Orner, R., & Watson, P.J. “Early intervention to prevent development of PTSD.”

Schnurr, P.P., & Kilpatrick, D.G. “Getting published in the traumatic stress literature.”

Watson, P.J., & Ruzek, J.I. “Early intervention for trauma.”

Watson, P.J., Swales, P.J., & Knight, J.A. “PTSD compensation and pension practice guidelines.”

VA

Friedman, M.J. “New developments in the pharmacological treatment of PTSD.” Primary Care – PTSD Conference, Washington, DC, October 2002.

Friedman, M.J. “Future pharmacotherapy for PTSD – prevention and treatment.” EES/MIRECC 16, New Orleans, LA, January 2003.

Friedman, M.J. “Pharmacotherapy for Chronic PTSD.” EES/MIRECC 16, New Orleans, LA, January 2003.

Friedman, M.J. “VA/DoD practice guidelines.” EES/MIRECC 16, New Orleans, LA, January 2003.

Leskin, G.A. “Integrated models of care for PTSD in primary care.” Primary Care – PTSD Conference, Washington, DC, October 2002.

Monson, C.M., Guthrie, K.A., & Stevens, S.P. “Conjoint therapy in trauma recovery: Tales from the Family I.M.P.A.C.T. Project.” Conference on Thinking Beyond the Individual: Systems-Centered Responses to Trauma, White River Junction, VT, October 2002.

Monson, C.M., & Guthrie, K.A. “Cognitive-Behavioral Couple’s Therapy for PTSD.” New England Region Vet Center, Mystic, CT, April 2003.

Riney, S.J. “Communication and conflict resolution skills training for PTSD veterans.” VISN 4 MIRECC Videoteleconference, Philadelphia VA Medical Center, Philadelphia, PA, January 2003.

Riney, S.J. “Teaching and integrating communication skills.” Annual VISN 21 Social Work Conference, VA Palo Alto Health Care System, Palo Alto, CA, May 2003.

Robinson, P., **Davison, E.H., & Smith, S.M.** “Customer service: Serving women veterans.” FY 2003 Medical Center Mandatory In-Service Program, VA Boston Healthcare System, Boston, MA, February 2003.

Ruzek, J.I. “Preventing mental health problems following disaster: 9-11 and beyond” National MIRECC Conference, Portland, OR, May 2003.

Schnurr, P.P. “Trauma, PTSD, and physical health in veterans.” South-Central MIRECC Meeting, New Orleans, LA, January 2003.

Schnurr, P.P. “Psychotherapy for PTSD: A tale of two studies.” Denver VA Medical Center, Denver, CO, July 2003.

Sharkansky, E.J. “Women veterans.” Advanced Psychosocial Rehabilitation Strategies: Meeting the Challenges of VHA Managers, Care Givers, and Veterans with Mental Illness, Washington, DC, June 2003.

Sharkansky, E.J. “Management of PTSD and dissociation in primary care.” Boston VA Women’s Mental Health Mini-Residency, Boston, MA, September 2003.

Street, A.E. “Intimate partner violence and military sexual trauma.” VA National Satellite Broadcast, Washington, DC, March 2003.

Swales, P. “Introduction to anxiety disorders.” VA Palo Alto Health Care System-Nursing Staff, VA Palo Alto, Palo Alto, CA, February 2003.

Watson, P.J. “Trauma and PTSD in primary care settings.” Conference on Thinking Beyond the Individual: Systems-Centered Responses to Trauma, VA Medical & Regional Office Center, White River Junction, VT, October 2002.

Watson, P.J. “Post traumatic stress disorder: Evidence-based assessment and treatment.” Canadian Veterans Affairs, Ottawa, Canada, May 2003.

Young, B.H. “Trauma in the community: An overview of key concepts and early interventions.” Philadelphia VA Medical Center, Philadelphia, PA, October 2002.

OTHER

Batten, S.V., Cloitre, M., Hembree, E.A., **Orsillo, S.M.**, & **Ruzek, J.I.** "Next-step treatments for PTSD: What should we do with nonresponders, comorbid conditions, and complicating factors?" Annual Meeting of the Association for the Advancement of Behavior Therapy, Reno, NV, November 2002.

Behar, K.L. "Metabolic trafficking between glia and neurons studied using ¹³C NMR spectroscopy." Brain '03, International Symposium of the Society for Cerebral Blood Flow and Metabolism, Calgary, Canada, June 2003.

Bracha, H.S. "Biological treatment of posttraumatic stress disorder." Hawaii State Hospital Department of Psychiatry, John A. Burns School of Medicine, Honolulu, HI, November 2002.

Bracha, H.S., Ralston, T., Yamashita, J.M., Friszer, S.M., Bracha, Z., & Nelson, G. "A 2003 update: PTSD, dissociative-convulsive, phobic, anxiety and mood disorder." Annual meeting of the American Academy of Pediatrics-Hawaii Chapter, Kauai, HI, May 2003.

Curran, E.A. "PTSD and families: Assessment and treatment." Mental Research Institute, Palo Alto, CA, April 2003.

Donegan, N.H., **Sanislow, C.A.**, Blumberg, H.P., Fulbright, R.K., Skudlarski, P., Lacadie, C., Olson, I.R., Gore, J.C., **McGlashan, T.H.**, & Wexler, B.E. "Amygdala hyper-reactivity in borderline personality disorder: implications for emotional dysregulation and hyper vigilance." Department of Psychology, Columbia University, New York, NY, March 2003.

Friedman, M.J. "New management strategies for PTSD." Walter Reed Army Hospital, Washington, DC, December 2002.

Friedman, M.J. "Follow-up status report: Meeting the mental health needs of the country in the wake of September 11, 2001." Annual Rosalynn Carter Symposium on Mental Health Policy, Washington, DC, April 2003.

Friedman, M.J. "Workshop on early intervention following mass casualties, lessons from 9/11." Annual Meeting of the American Psychiatric Association, San Francisco, CA, May 2003.

Friedman, M.J. "Biological abnormalities and pharmacological treatments." University of Zagreb Summer Institute on Traumatology, Dubrovnik, Croatia, June 2003.

Friedman, M.J., & **Schnurr, P.P.** "Psychotherapy for PTSD: A tale of two trials." Walter Reed Army Medical Center, Washington, DC, December 2002.

Gelernter, J. "Genetic linkage studies of anxiety disorders and drug dependence." Gennaisance Corporation, New Haven, CT, October 2002.

Gelernter, J. "Progress in genetic linkage studies of substance dependence." National Institute on Drug Abuse –

American Society of Human Genetics Symposium, Baltimore, MD, October 2002.

Gelernter, J. "Linkage disequilibrium studies of alcohol dependence: Gene identification and implications of population groups studied." Alcohol Use and Health Disparities Workshop, National Institute on Alcohol Abuse and Alcoholism, Rockville, MD, December 2002.

Gelernter, J. "Genetic studies in anxiety disorders." 11th Congress of the Israel Psychiatric Association, Haifa, Israel, April 2003.

Hamblen, J.L., & Gibson, L. "Brief intervention for continuing postdisaster distress." Project Liberty, New York, NY, May 2003.

Hamblen, J.L., Gibson, L., & **Price, J.** "Brief intervention for continuing postdisaster distress." Project Liberty, New York, NY, July 2003.

Hamblen, J.L., Gibson, L., & **Watson, P.J.** "Brief intervention for continuing postdisaster distress." Project Liberty, New York, NY, June 2003.

Hamblen, J.L., & **Watson, P.J.** "Brief intervention for continuing postdisaster distress." Virginia State Mental Health Counselors, Fairfax, VA, June 2003.

Kaufman, J. "Understanding child abuse: From neurobiology to social policy." Barbara Lehmann Lecture, Tulane University, February 2003.

Kaufman, J., DeSena, A.D., Murphy, R.A., **Douglas-Palumberi, H.**, Blau, G., & Kelly, B. "SAFE Homes program evaluation." State of Connecticut Department of Children and Families Community Providers Network, Hartford, CT, June 2003.

Kaufman, J., Jackowski, M., Staib, L., Schultz, L.R., **Douglas-Palumberi, H.**, Anderson, A., & **Krystal, J.** "Corpus callosum in maltreated children with PTSD: A diffusion tensor imaging study." Society for Biological Psychiatry, San Francisco, CA, May 2003.

Keane, T.M. "Psychological treatments for PTSD." Department of Psychiatry, Tufts University School of Medicine, Boston, MA, November 2002.

Keane, T.M. "Recent advances in the study of posttraumatic stress disorder." Department of Psychology, Suffolk University, Boston, MA, November 2002.

Keane, T.M. "Brief interventions for the treatment of PTSD." Treatment of Psychological Trauma One Year Post 9/11, PTSD Alliance Conference, Brooklyn, NY, January 2003.

Keane, T.M. "Ethical issues in research with trauma exposed populations." Ethical Issues Pertaining to Research in the Aftermath of Disaster, New York Academy of Medicine – National Institute of Mental Health, New York, NY, January 2003.

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- Keane, T.M.** "Recent advances in the psychological treatment of PTSD." Birmingham School of Medicine, University of Alabama, Birmingham, AL, March 2003.
- Keane, T.M.** "Assessment and treatment of PTSD: Current status." Kaiser Permanente of North California Mental Health Conference, San Francisco, CA, April 2003.
- Keane, T.M.** "Psychological responses to terrorism." HealthWorld 2003, Harvard Medical International, Athens, Greece, April 2003.
- Keane, T.M.** "Recent advances in the assessment and treatment of PTSD." Psychological Trauma and Operational Stress Conference, Ste. Anne's Centre, Veterans Affairs Canada, Montreal, Canada, May 2003.
- Keane, T.M.** "PTSD, pain, and health." University of Zagreb Summer Institute on Traumatology, Dubrovnik, Croatia, June 2003.
- Koenen, K.C.** "Using genetically informed designs to show traumatic effects." Boston University Medical Center, Boston, MA, January 2003.
- Krystal, J.H.** "Introduction to Neuroimaging." Institute on Psychopharmacology, Annual Meeting of the American Psychiatric Nurse Association, Cambridge, MA, June 2003.
- Leskin, G.A.** "Assessment and treatment of PTSD." Atascadero State Hospital, Atascadero, CA, February 2003.
- Leskin, G.A., & Gusman, F.D.** "Screening and treatment of returning Marines from Iraq." Camp Pendleton Medical Hospital, Camp Pendleton, CA, August 2003.
- Leskin, G.A., & Gusman, F.D.** "Screening and treatment of returning soldiers from Iraq." Naval Medical Hospital, San Diego, CA, August 2003.
- Lindley, S.** "Application of psychobiology and pharmacology of traumatic stress to forensics." Australian and New Zealand Association of Psychiatry, Psychology and the Law, Fremantle, Western Australia, September 2003.
- Lindley, S.E.** "The biology and pharmacological treatment of PTSD." Northwest Mental Health Institute, Eugene, OR, October 2002.
- Loo, C.M.** "PTSD among ethnic minority populations." Center for Multicultural Training in Psychology, Boston, MA, October 2002.
- Loo, C.M.** "Race, trauma and healing." Psychology Department, Graduate College of Education, William Joiner Center, Institute for Asian American Studies & Pacific Asian American Students, Boston, MA, October 2002.
- Loo, C.M.** "Creating the right attitude: Coping with stress." Annual Narcissus Festival, Honolulu, HI, August 2003.
- Morgan, C.A.** "Special Operations soldiers experiencing acute stress: Factors that contribute to stress hardiness and stress vulnerability." Department of Psychiatry, Wake Forest University, NC, February 2003.
- Morgan, C.A.** "Understanding stress hardiness: Studies of US Special Operations personnel." Waterbury Hospital, Waterbury, CT, February 2003.
- Morgan, C.A.** "Accuracy of eyewitness memory for persons encountered during exposure to highly stressful, personally relevant stress." University of Zagreb Summer Institute on Traumatology, Dubrovnik, Croatia, June 2003.
- Morgan, C.A.** "Studies of healthy humans experiencing acute stress: What can they tell us about stress hardiness, stress vulnerability and PTSD?" University of Zagreb Summer Institute on Traumatology, Dubrovnik, Croatia, June 2003.
- Norris, F.** "Twenty years of disaster research: What do we know and where do we go from here?" Constituency and Outreach Education Program Meeting, National Institute of Mental Health, Santa Fe, NM, April 2003.
- Norris, F.** "Twenty years of disaster research: What do we know and where do we go from here?" University of Pennsylvania Summer Fellowship Program in Political Violence, Philadelphia, PA, June 2003.
- Orner, R., Pilgrim, H., **Ruzek, J.I.**, Schnyder, U., & Weisaeth, L. "Provider consultation about promoting evidence based early intervention services following trauma." European Conference on Traumatic Stress, Berlin, Germany, May 2003.
- Qin, J., Mitchell, K.J., Johnson, M.K., Krystal, J.H., Southwick, S.M., Rasmusson, A.M., & Allen, E.S.** "Reactions to and memories for the September 11, 2001 terrorist attacks in adults with posttraumatic stress disorder." Annual Meeting of the American Psychological Society, Atlanta, GA, June 2003.
- Rasmusson, A.M.** "Psychopharmacological management of posttraumatic stress disorder." American Psychiatric Nurses Association, Psychopharmacology Institute, Boston, MA, June 2003.
- Ruzek, J.I.** "State of the art in the treatment of trauma." Trauma in the Community, Philadelphia, PA, October 2002.
- Ruzek, J.I.** "Bringing cognitive-behavioral psychology to bear on the care of survivors of terrorist attack." Annual Meeting of Association for the Advancement of Behavior Therapy, Reno, NV, November 2002.
- Ruzek, J.I.** "Stress management for families of Iraq War personnel." Meeting of Blue Star Moms, Danville, CA, April 2003.
- Ruzek, J.I.** "Early intervention following disaster." Santa Cruz County Red Cross, Santa Cruz, CA, May 2003.
- Ruzek, J.I.** "Preventing mental health problems following disaster: 9-11 and beyond." Psychological Trauma and Operational Stress Conference, Ste. Anne's Centre, Veterans Affairs Canada, Montreal, Canada, May 2003.
- Ruzek, J.I.** "Early intervention in the context of combat stress control." Combat Stress Control Team Training, Palo Alto, CA, July 2003.
- Sanislow, C.A., Donegan, N.H., Johnson, M.K., Raye, C.L., Mitchell, K.J., Greene, E.J., & McGlashan, T.H.** "Activation differences in frontal and limbic structures in BPD patients with and without PTSD." Annual Meeting of
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the Society of Biological Psychiatry, San Francisco, CA, May 2003.

Sanislow, C.A., Donegan, N.H., Johnson, M.K., Raye, C.L., Mitchell, K.J., Greene, E.J., & McGlashan, T.H. "Comparing fMRI neural correlates of Borderline Personality Disorder patients with and without comorbid PTSD." Annual Meeting of the American Psychiatric Association, San Francisco, CA, May 2003.

Schnurr, P.P. "Applying empirical findings on PTSD to clinical practice." Department of Psychiatry, University of Zurich, Switzerland, April 2003.

Schnurr, P.P. "Assessment of trauma-related psychological disturbances." Annual Zurich Psychotraumatology Meeting, Zurich, Switzerland, April 2003.

Schnurr, P.P. "Methodological issues in psychotherapy outcome research." Department of Psychiatry, University of Zurich, Switzerland, April 2003.

Schnurr, P.P. "Methodological issues in psychotherapy outcome research." European Conference on Traumatic Stress, Berlin, Germany, May 2003.

Schnurr, P.P. "Trauma, PTSD, and physical health." University of Zagreb Summer Institute on Traumatology, Dubrovnik, Croatia, June 2003.

Southwick, S.M. "PTSD and memory." Boston University School of Medicine, Boston, MA, February 2003.

Southwick, S.M. "Neurobiology alterations of children in PTSD." Child Study Center, Yale University, New Haven, CT, April 2003.

Southwick, S.M. "Neurobiology of Traumatic Memory." University of Zagreb Summer Institute on Traumatology, Dubrovnik, Croatia, June 2003.

Walser, R.D., & Ruzek, J.I. "Manual-based interventions: Challenges for moving research to practice." Annual Meeting of Association for the Advancement of Behavior Therapy, Reno, NV, November 2002.

Watson, P.J. "Findings from the Oklahoma City bombing mental health intervention case study." FEMA Grantees, New York, NY, January 2003.

Watson, P.J. "PTSD and trauma: Evidence-based treatment and intervention." Canadian Defense Force Mental Health Specialists, Ottawa, Canada, February 2003.

Watson, P.J. "Early intervention for trauma following disaster: Code conference." District of Columbia Department of Mental Health, Washington, DC, March 2003.

Watson, P.J. "Defusing and debriefing for nurses." Dartmouth-Hitchcock Medical Center, Lebanon, NH, April 2003.

Watson, P.J. "Evidence-based treatment of traumatic stress following disasters." New York State Office of Mental Health Training, New York, NY, April 2003.

Watson, P.J. "Early intervention for trauma following disaster: Chapter from Annual Review of Psychiatry, Vol. 22." Annual Meeting of the American Psychiatric Association, San Francisco, CA, May 2003.

Watson, P.J. "Science to service and service to science in disaster mental health." SAMHSA Roadmap to Disasters Summit Meeting, Washington, DC, June 2003.

Watson, P.J. "Brief intervention for continuing postdisaster distress." District of Columbia Mental Health Counselors, Washington, DC, August 2003.

Watson, P.J. "Early interventions following disasters." Georgetown University and District of Columbia Clinicians, Georgetown, VA, September 2003.

Watson, P.J., & Buckley, T.C. "Program evaluation for trauma treatment following September 11th incident." Center for Mental Health Services Public Safety Worker Grantees, Bethesda, MD, February 2003.

Watson, P.J., & Hamblen, J.L. "PTSD and trauma: Treatment and intervention." Virginia State Crisis Counselors, Fairfax, VA, October 2002.

Whealin, J.M. "Early intervention for traumatic stress: A cognitive-behavioral perspective." Department of Psychiatry, University of Hawaii, Honolulu, HI, September 2003.

Young, B.H. "Delivering disaster mental health services." Colusa County Mental Health Services, Colusa, CA, November 2002.

Young, B.H. "When trauma strikes camp: How mental health professionals can help before, during, and after a traumatic incident." American Camping Association Annual Conference, Denver, CO, February 2003.

TABLE 5
EDITORIAL BOARD MEMBERSHIPS OF NATIONAL CENTER STAFF
FISCAL YEAR 2003

<i>American Journal of Psychology</i>	Johnson
<i>Assessment</i>	Keane; King, L.
<i>Behavior Therapy</i>	Orsillo
<i>Biological Psychiatry</i>	Duman; Krystal; Moghaddam
<i>Clinical Psychology Review</i>	Orsillo
<i>Cognitive and Behavioral Practice</i>	Resick
<i>Critical Reviews in Neurobiology</i>	Duman
<i>Death Studies</i>	Prigerson
<i>Encyclopedia of Cognitive Science</i>	Krystal
<i>International Journal of Emergency Mental Health</i>	Keane
<i>Journal of Abnormal Psychology</i>	Keane; Litz; Orsillo
<i>Journal of Aggression, Maltreatment and Trauma</i>	Carlson; Friedman; Resick
<i>Journal of Anxiety Disorders</i>	Keane
<i>Journal of Applied Cognition</i>	Johnson
<i>Journal of Consulting and Clinical Psychology</i>	Litz
<i>Journal of Dissociation and Trauma</i>	Carlson
<i>Journal of Experimental Psychology: General</i>	Johnson
<i>Journal of Experimental Psychology: Learning, Memory, and Cognition</i>	Johnson
<i>Journal of General Psychology</i>	Miller
<i>Journal of Interpersonal Violence</i>	Keane
<i>Journal of Neurochemistry</i>	Duman (Handling Editor); Moghaddam (Handling Editor)
<i>Journal of Pharmacology and Experimental Therapeutics</i>	Duman (Associate Editor)
<i>Journal of Psychopathology and Behavioral Assessment</i>	Keane; King, L.
<i>Journal of Trauma Practice</i>	Keane (Consulting Editor)
<i>Journal of Traumatic Stress</i>	Carlson; Kaloupek; King, D.; King, L.; Litz; Norris (Deputy Editor); Orsillo; Ruzek; Schnurr (Deputy Editor)
<i>Molecular Pharmacology</i>	Duman
<i>Neuropsychology</i>	Johnson
<i>Neuropsychopharmacology</i>	Duman (Associate Editor)
<i>Neuroscience and Biobehavioral Reviews</i>	Bracha
<i>Psychiatric Services</i>	Rosenheck
<i>Psychological Assessment</i>	King, D.; King, L. (Associate Editor)
<i>Psychological Bulletin</i>	Johnson
<i>Psychological Review</i>	Johnson
<i>Psychopharmacology</i>	Krystal (Field Editor)
<i>Trauma, Violence and Abuse: A Review Journal</i>	Keane; Resick
<i>Traumatology</i>	Ruzek

ABOUT THE NATIONAL CENTER FOR PTSD

The National Center for Post-Traumatic Stress Disorder was created within the Department of Veterans Affairs in 1989, in response to a Congressional mandate to address the needs of veterans with military-related PTSD. Its mission was, and remains:

To advance the clinical care and social welfare of America’s veterans through research, education, and training in the science, diagnosis, and treatment of PTSD and stress-related disorders.

The VA charged the Center with responsibility for promoting research into the causes and diagnosis of PTSD, for training healthcare and related personnel in diagnosis and treatment, and for serving as an information resource for PTSD professionals across the United States and, eventually, around the world.

Although initially considered primarily a problem of veterans of the Vietnam War, PTSD is now recognized as a major public and behavioral health problem affecting military veterans, active-duty personnel involved in open conflicts or hazardous peacekeeping operations, and victims of disasters, accidents, and interpersonal violence in the civilian arena. Today, the disorder is estimated to affect more than 10 million Americans at some point in their lives, and many times more people around the world.

At the time that the Center was being established, a VA-wide competition was undertaken to decide on a site where the Center would be located. It was quickly determined that no single VA site could adequately serve in this role. As a result, the Center was established as a consortium of five (later expanded to seven) VA centers of excellence in PTSD, each distinguished by a particular area of expertise while also sharing common interests and concerns.

National Center for PTSD: Organization

Behavioral Science Division

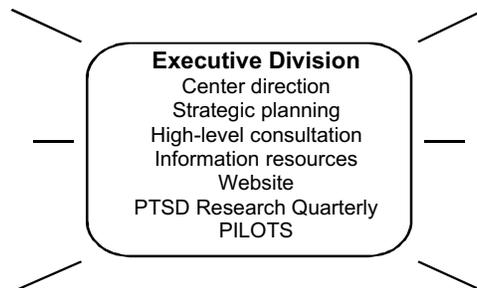
Assessment
Psychotherapy
Psychophysiology
Information processing

Education Division

Education
Sleep laboratory
Clinical laboratory
Disaster mental health

Evaluation Division

Clinical program evaluation



Executive Division

Center direction
Strategic planning
High-level consultation
Information resources
Website
PTSD Research Quarterly
PILOTS

Clinical Neurosciences Division

Neurobiology
Pharmacotherapy
Brain Imaging
Genetic Epidemiology

Women's Health Science's Division

Women veterans
Physical health
Gulf War veterans

Pacific Islands Division

Ethnocultural issues
Active-duty personnel

ABOUT THE DIRECTORS

Executive Division

Matthew J. Friedman, M.D., Ph.D., a professor of psychiatry and pharmacology at Dartmouth Medical School, is recognized as a world leader in the field of traumatic stress studies. He has worked with PTSD patients as a clinician and researcher for 30 years and has published extensively on stress and PTSD, biological psychiatry, psychopharmacology, and clinical outcome studies on depression, anxiety, schizophrenia, and chemical dependency. He has written or co-edited twelve books and monographs, 41 book chapters, and 85 peer-reviewed articles in scientific journals. Listed in *The Best Doctors in America*, he is a Distinguished Fellow of the American Psychiatric Association, past-president of ISTSS, and vice-chair of the Scientific Advisory Board of the Anxiety Disorders Association of America, and he has served on many VA and NIMH research, education, and policy committees. He has received many honors, including the ISTSS Lifetime Achievement Award in 1999.

Behavioral Science Division

Terence M. Keane, Ph.D., professor and vice-chair of the Department of Psychiatry at Boston University School of Medicine, is also recognized as a world leader in the field of traumatic stress. He developed many of the most widely used PTSD assessment measures and is considered an authority on the behavioral treatment of PTSD. Dr. Keane has participated in many important scientific review panels and was co-chair of the National Institute of Mental Health Consensus Conference that established national standards for the diagnosis and assessment of PTSD. He is a past president of ISTSS and a fellow of the American Psychological Association and the American Psychological Society, and he has received many awards, including a Fulbright scholarship and the Robert J. Laufer Outstanding Scientific Achievement Award from ISTSS.

Clinical Neurosciences Division

John H. Krystal, M.D., professor and deputy chairman for research for the Department of Psychiatry at the Yale University School of Medicine, is one of the nation's leading investigators on the neurobiology and psychopharmacology of PTSD. Dr. Krystal has published over 200 original scientific articles and chapters and has served on the editorial boards of several journals. He has also served on many national advisory committees, including a DoD-VA collaborative research program initiative on stress, PTSD, and other illnesses related to the 1991 Gulf War; the National Institute of Health's Director's Advisory Group on Young Investigators; and the NIMH Board of Scientific Counselors. His work has been honored by numerous awards, including the ISTSS Presidents Award and the ISTSS Danieli Award, both for PTSD research contributions. Currently he also serves as Director of the Alcohol Research Center funded by the Department of Veterans Affairs.

Education Division

Fred D. Gusman, M.S.W., is an internationally recognized expert educator and program administrator who is often called upon to consult on program development, reorganization, and problem-solving. He developed the first and largest PTSD inpatient program in the VA system and the only specialized inpatient PTSD treatment for women veterans. His Clinical Training Program, the Center's mini-residency for PTSD clinicians, attracts national and international attention. Mr. Gusman is a consultant to numerous federal, state, and local programs, including the American Red Cross. He is currently a member of the Under Secretary for Health's Special Committee on PTSD, the Specialized PTSD Program Task Force, the Management Oversight Committee, and the Interdepartmental Task Group on Disaster, Crisis, and Counseling; the latter group includes DoD, Emergency Mental Health Strategic Healthcare Group, Veterans Health Administration, and the American Red Cross.

Women's Health Sciences Division

Patricia Resick, Ph.D. is a Curators' Professor of Psychology at the University of Missouri-St. Louis (currently on leave). She is the author or coauthor of two books and more than 100 invited chapters and scientific articles on the topics of assessment and treatment of posttraumatic stress disorder. She has specialized on the topic of violence against women and has developed an effective treatment for trauma-related PTSD and depression: cognitive processing therapy. Dr. Resick has served on the Board of Directors of the International Society for Traumatic Stress Studies and has also served as its secretary and vice president. She is currently the president of the Association for the Advancement of Behavior Therapy.

Pacific Islands Division

Fred Gusman of the Education Division is serving as Chief Operating Officer of the Pacific Islands Division until a replacement is named.

Evaluation Division

Robert Rosenheck, M.D., is a clinical professor of psychiatry, epidemiology, and public health at Yale University School of Medicine, where he also is director of the Division of Mental Health Services and Outcomes Research. He is an internationally known mental health service researcher who is a leader in cost-effectiveness studies of behavioral health interventions and in monitoring quality of care and other aspects of the performance of large healthcare systems. He has served as prime architect of national VA collaborative programs with both the Department of Housing and Urban Development and the Social Security Administration. He also directs the client-level evaluation of the Substance Abuse and Mental Health Services Administration's ACCESS program for homeless mentally ill Americans and is currently evaluating the joint HUD-HHS-VA multi-site initiative to end chronic homelessness. He has published more than 300 scientific papers in peer-reviewed journals.

ACRONYMS USED IN THE TEXT

ACCESS	Access to Community Care and Effective Supportive Services
ACND	American College of Neuropsychopharmacology
APA	American Psychiatric Association
CSP	Cooperative Studies Program
DoD	Department of Defense
EES	Employee Education System
fMRI	Functional Magnetic Resonance Imaging
HHS	(Department of) Health and Human Services
HIV	Human Immunodeficiency Virus
HPA	Hypothalamic-pituitary-adrenal
HSR&D	Health Services Research and Development
HUD	Housing and Urban Development
ISTSS	International Society for Traumatic Stress Studies
MIRECC	Mental Illness Research, Education and Clinical Center
NARSAD	National Alliance for Research in Schizophrenia and Depression
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIDA	National Institute of Drug Abuse
NIH	National Institutes of Health
NIMH	National Institute of Mental Health
NINDS	National Institute of Neurological Disorders and Stroke
NVVLS	National Vietnam Veterans Longitudinal Study
NVVRS	National Vietnam Veterans Readjustment Study
PILOTS	Published International Literature on Traumatic Stress
PTSD	Post-Traumatic Stress Disorder
REAP	Research Enhancement Award Program
SAMHSA	Substance Abuse and Mental Health Services Administration
VA	(Department of) Veterans Affairs
VISN	Veterans Integrated Service Network

Executive Division

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Clinical Neurosciences Division

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Behavioral Science Division

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Women's Health Sciences Division

VA New England Healthcare System
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Pacific Islands Division

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National Center Website

www.ncptsd.org

